acgggcggaa tagagtggct taattctcga tctatcccca cgtatgcatc tgaattaaca 360
aatgaactgc ttaaaaaaga cggtaaggtt caagccacaa attcatttag cggagttaac 420
tattggctag ttaaaaataa aattgaagtt ttttatccag gcccgggaca cactccagat 480
aacgtagtgg tttggttgcc tgaaaggaaa atattattcg gtggttgttt tattaaaccg 540
tacggtttag gcaatttggg tgacgcaaat atagaagctt ggccaaagtc cgccaaatta 600
ttaaagtcca aatatggtaa ggcaaaactg gttgttccaa gtcacagtga agttggagac 660
gcatcactct tgaaacttac attagagcag gcggttaaag ggttaaacga aagtaaaaaa 720
ccatcaaaac caagcaacta a 741

<210> 1434
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1434
cacaatcaag accaagattt gcgat 25

<210> 1435
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1435
gaaagggcag ctcgttacga tagag 25

<210> 1436
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1436
cagcatcaac atttaagatc ccca 24

<210> 1437
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1437
ctccacttga ttaactgcgg aaattc 26

<210> 1438
<211> 828
<212> DNA
<213> Escherichia coli

<400> 1438
atggcaatcc gaatcttcgc gatacttttc tccatttttt ctcttgccac tttcgcgcat 60
gcgcaagaag gcacgctaga acgttctgac tggaggaagt ttttcagcga atttcaagcc 120
aaaggcacga tagttgtggc agacgaacgc caagcggatc gtgccatgtt ggtttttgat 180
cctgtgcgat cgaagaaacg ctactcgcct gcatcgacat tcaagatacc tcatacactt 240
tttgcacttg atgcaggcgc tgttcgtgat gagttccaga tttttcgatg ggacggcgtt 300
aacaggggct ttgcaggcca caatcaagac caagatttgc gatcagcaat gcggaattct 360
actgtttggg tgtatgagct atttgcaaag gaaattggtg atgacaaagc tcggcgctat 420
ttgaagaaaa tcgactatgg caacgccgat ccttcgacaa gtaatggcga ttactggata 480
gaaggcagcc ttgcaatctc ggcgcaggag caaattgcat ttctcaggaa gctctatcgt 540
aacgagctgc cctttcgggt agaacatcag cgcttggtca aggatctcat gattgtggaa 600
gccggtcgca actggatact gcgtgcaaag acgggctggg aaggccgtat gggttggtgg 660
gtaggatggg ttgagtggcc gactggctcc gtattcttcg cactgaatat tgatacgcca 720
aacagaatgg atgatctttt caagagggag gcaatcgtgc gggcaatcct tcgctctatt 780
gaagcgttac cgcccaaccc ggcagtcaac tcggacgctg cgcgataa 828

<210> 1439
<211> 801
<212> DNA
<213> Pseudomonas aeruginosa

<400> 1439
atgaaaacat ttgccgcata tgtaattatc gcgtgtcttt cgagtacggc attagctggt 60
tcaattacag aaaatacgtc ttggaacaaa gagttctctg ccgaagccgt caatggtgtc 120
ttcgtgcttt gtaaaagtag cagtaaatcc tgcgctacca atgacttagc tcgtgcatca 180
aaggaatatc ttccagcatc aacatttaag atccccaacg caattatcgg cctagaaact 240
ggtgtcataa agaatgagca tcaggttttc aaatgggacg gaaagccaag agccatgaag 300
caatgggaaa gagacttgac cttaagaggg gcaatacaag tttcagctgt tcccgtattt 360
caacaaatcg ccagagaagt tggcgaagta agaatgcaga aataccttaa aaaattttcc 420
tatggcaacc agaatatcag tggtggcatt gacaaattct ggttggaagg ccagcttaga 480
atttccgcag ttaatcaagt ggagtttcta gagtctctat atttaaataa attgtcagca 540
tctaaagaaa accagctaat agtaaaagag gctttggtaa cggaggcggc acctgaatat 600
ctagtgcatt caaaaactgg tttttctggt gtgggaactg agtcaaatcc tggtgtcgca 660
tggtgggttg ggtgggttga gaaggagaca gaggtttact ttttcgcctt taacatggat 720
atagacaacg aaagtaagtt gccgctaaga aaatccattc ccaccaaaat catggaaagt 780
gagggcatca ttggtggcta a 801

<210> 1440
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1440
agaccgttat cgtaaacagg gctaag 26

<210> 1441
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1441
ttttttgctc aaacttttc aggatc 26

<210> 1442

<211> 927
<212> DNA
<213> Pseudomonas aeruginosa strain RNL-1

<400> 1442
atgaatgtca ttataaaagc tgtagttact gcctcgacgc tactgatggt atcttttagt 60
tcattcgaaa cctcagcgca atccccactg ttaaaagagc aaattgaatc catagtcatt 120
ggaaaaaaag ccactgtagg cgttgcagtg tgggggcctg acgatctgga acctttactg 180
attaatcctt ttgaaaaatt cccaatgcaa agtgtattta aattgcattt agctatgttg 240
gtactgcatc aggttgatca gggaaagttg gatttaaatc agaccgttat cgtaaacagg 300
gctaaggttt tacagaatac ctgggctccg ataatgaaag cgtatcaggg agacgagttt 360
agtgttccag tgcagcaact gctgcaatac tcggtctcgc acagcgataa cgtggcctgt 420
gatttgttat ttgaactggt tggtggacca gctgctttgc atgactatat ccagtctatg 480
ggtataaagg agaccgctgt ggtcgcaaat gaagcgcaga tgcacgccga tgatcaggtg 540
cagtatcaaa actggacctc gatgaaaggt gctgcagaga tcctgaaaaa gtttgagcaa 600
aaaacacagc tgtctgaaac ctcgcaggct ttgttatgga agtggatggt cgaaaccacc 660
acaggaccag agcggttaaa aggtttgtta ccagctggta ctgtggtcgc acataaaact 720
ggtacttcgg gtatcaaagc cggaaaaact gcggccacta atgatttagg tatcattctg 780
ttgcctgatg gacggccctt gctggttgct gtttttgtga aagactcagc cgagtcaagc 840
cgaaccaatg aagctatcat tgcgcaggtt gctcagactg cgtatcaatt tgaattgaaa 900
aagctttctg ccctaagccc aaattaa 927

<210> 1443
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1443
cttctgctct gctgatgctt ggc 23

<210> 1444
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1444
ggcgaccagg tattttgtaa tactgc 26

<210> 1445
<211> 927
<212> DNA
<213> Salmonella typhimurium strain JMC

<400> 1445
atgaatgtca tcacaaaatg tgttttcacc gcttctgctc tgctgatgct tggcttaagt 60
tcatttgtag tatcagccca atccccttttg ttaaaagagc agattgaaac catagtgacg 120
ggtaaaaagg ccactgtagg tgtagcagtg tgggggcctg acgatctgga acctttgttg 180
ctgaatccat ttgaaaagtt tccgatgcaa agtgtgttta aactgcattt agctatgtta 240
gttctgcatc aggtcgatca ggggaaactg gatttaaatc agtctgttac tgttaatcgt 300
gctgcagtat tacaaaatac ctggtcgcca atgatgaaag atcatcaggg cgatgaattt 360
actgttgcag tacagcagtt actgcagtat tcggtgtcac acagcgacaa tgtggcctgc 420
gatttgttat ttgaactggt gggcgggccg caagctttgc atgcttatat ccagtcttta 480
ggcgttaaag aagctgccgt ggtagcaaat gaagcgcaaa tgcatgcgga tgatcaggtg 540
caatatcaaa actggacgtc gatgaaagcc gcagcacaag ttctgcaaaa gtttgaacag 600
aaaaagcagt tgtctgaaac ctctcaggcc ttgttatgga aatggatggt tgaaaccacc 660

acaggaccac agcggttaaa aggcttgtta cctgctggta ctatagtggc gcataaaacc 720
ggtacttcgg gcgtcagagc aggaaaaact gcggcgacta atgatgcggg cgtcattatg 780
ttgcctgatg gacggccttt attggtggcg gtatttgtca aggattcggc tgaatcagaa 840
cgaaccaatg aagctattat tgcgcaggtt gcgcaagcgg cttatcagtt tgagctgaaa 900
aaactctctg cagtgagtcc ggattga 927

<210> 1446
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1446
ggcctgygat ttgttatttg aactggt 27

<210> 1447
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1447
cgctstggtc ctgtggtggt ttc 23

<210> 1448
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1448
gatcaggtgc artatcaaaa ctggac 26

<210> 1449
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1449
agcwggtaac aayccttta accgct 26

<210> 1450
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

Oligonucleotide

<400> 1450
accactggga atacacttgt aatggc 26

<210> 1451
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1451
atctacctgg tcaatcattg cttcgt 26

<210> 1452
<211> 486
<212> DNA
<213> Staphylococcus epidermidis strain BM10393

<400> 1452
atgacattat caataattgt cgctcacgat aaacaaagag tcattgggta ccaaaatcaa 60
ttaccttggc acttaccaaa tgatttaaag catattaaac aactgaccac tgggaataca 120
cttgtaatgg cacggaaaac ttttaattct atagggaagc cattgccaaa tagacgtaac 180
gtcgtactca ctaaccaagc ttcatttcac catgaagggg tagatgttat aaactctctt 240
gatgaaatta aagagttatc tggtcatgtt tttatatttg gaggacaaac gttatacgaa 300
gcaatgattg accaggtaga tgatatgtat atcacagtaa tagatggaaa gtttcaagga 360
gacacattct ttccaccata cacattcgaa aactgggaag tcgaatcttc agtagaaggt 420
caactagatg aaaaaaatac tataccgcat acattcttac atttagtgcg tagaaaaggg 480
aaatag 486

<210> 1453
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1453
atcgaagaat ggagttatcg graatg 26

<210> 1454
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1454
cctaaaaytr ctggggattt cwgga 25

<210> 1455
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1455
caggtggtgg ggagatatac aaaa 24

<210> 1456
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1456
tatgttagas rcgaagtctt ggktaa 26

<210> 1457
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1457
caaaggtgaa cagctcctgt tt 22

<210> 1458
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1458
tccgttattt tctttaggtt ggttaaa 27

<210> 1459
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1459
aaggtgaaca gctcctgttt 20

<210> 1460
<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1460
gatcactacg ttctcattgt ca 22

<210> 1461
<211> 474
<212> DNA
<213> Escherichia coli

<400> 1461
gtgaaactat cactaatggt agctatatcg aagaatggag ttatcgggaa tggccctgat 60
attccatgga gtgccaaagg tgaacagctc ctgtttaaag ctattaccta taaccaatgg 120
ctgttggttg gacgcaagac ttttgaatca atgggagcat tacccaaccg aaagtatgcg 180
gtcgtaacac gtccaagttt tacatctgac aatgagaacg tagtgatctt tccatcaatt 240
aaagatgctt taaccaacct aaagaaaata acggatcatg tcattgtttc aggtggtggg 300
gagatataca aaagcctgat cgatcaagta gatacactac atatatctac aatagacatc 360
gagccggaag gtgatgttta ctttcctgaa atcccccagca attttaggcc agtttttacc 420
caagacttcg cctctaacat aaattatagt taccaaatct ggcaaaaggg ttaa 474

<210> 1462
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1462
gcactcccya ataggaaata cgc 23

<210> 1463
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1463
agtgttgctc aaaaacaact tcg 23

<210> 1464
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1464
acgttygaat ctatgggmgc act 23

<210> 1465
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1465
gtcgataagt ggagcgtaga ggc 23

<210> 1466
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1466
aagcattgac ctacaatcag tgt 23

<210> 1467
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1467
aatacaacta cattgtcatc atttgat 27

<210> 1468
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1468
cgttacccgc tcaggttgga catcaa 26

<210> 1469
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1469
catccccctc tggctcgatg tcg 23

<210> 1470
<211> 474
<212> DNA
<213> Escherichia coli

<400> 1470

ttgaaagtat cattgatagc tgcgaaacga aaaaacggcg tgattggttg cggtccagac 60
ataccgtggt ccgcgaaagg ggagcagcta ctttttaaag cattgaccta caatcagtgt 120
cttctggtgg gtcgcaagac gtttgaatct atgggcgcac tccccaatag gaaatacgcg 180
gtcgttaccc gctcaggttg gacatcaaat gatgacaatg tagttgtatt tcagtcaatc 240
gaagaggcca tggacaggct agctgaattc accggtcacg ttatagtgtc tggtggcgga 300
gaaatttacc gagaaacatt acccatggcc tctacgctcc acttatcgac gatcgacatc 360
gagccagagg gggatgtttt cttcccgagt attccaaata ccttcgaagt tgtttttgag 420
caacacttta cttcaaacat taactattgc tatcaaattt ggaaaaaggg ttaa 474

<210> 1471
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1471
gataatgaca acgtaatagt attccc 26

<210> 1472
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1472
gctcaatatc aatcgtcgat ata 23

<210> 1473
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1473
ttaaagcctt gacgtacaac cagtgg 26

<210> 1474
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1474
tgggcaatgt ttctctgtaa atctcc 26

<210> 1475
<211> 474
<212> DNA
<213> Escherichia coli

<400> 1475
gtgaaagtat cattaatggc tgcaaaagcg aaaaacggag tgattggttg cggtccacac 60
ataccctggt ccgcgaaagg agagcagcta ctctttaaag ccttgacgta caaccagtgg 120
cttttggtgg gccgcaagac gttcgaatct atgggagcac tccctaatag gaaatacgcg 180
gtcgttactc gctcagcctg gacggccgat aatgacaacg taatagtatt cccgtcgatc 240
gaagaggcca tgtacgggct ggctgaactc accgatcacg ttatagtgtc tggtggcggg 300
gagatttaca gagaaacatt gcccatggcc tctacgctcc atatatcgac gattgatatt 360
gagccggaag gagatgtttt ctttccgaat attcccaata ccttcgaagt tgtttttgag 420
caacacttta gctcaaacat taactattgc tatcaaattt ggcaaaaggg ttaa 474

<210> 1476
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1476
ggcgagcagc tcctattcaa ag 22

<210> 1477
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1477
taggtaagct aatgccgatt caaca 25

<210> 1478
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1478
gagaatggag taattggctc tggatt 26

<210> 1479
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1479
gcgaaataca caacatcagg gtcat 25

<210> 1480
<211> 474
<212> DNA

<213> Proteus mirabilis strain J120

<400> 1480
atgaaaatat ctcttatggc agctgtttcc gagaatggag taattggctc tggattggat 60
ataccttggc atgtacaagg cgagcagctc ctattcaaag ccatgactta caatcaatgg 120
cttctagttg gtcgtaaaac cttcgactca atgggtaaac ttccgaatag aaaatatgca 180
gtggttactc gttctaaaat tatctcgaat gaccctgatg ttgtgtattt cgcaagtgtt 240
gaatcggcat tagcttacct aaacaatgcg acagcacata tctttgtttc tggtggtggt 300
gaaatatata aagctttaat cgatcaagca gatgttatcc atctttcagt gattcacaag 360
catatctctg gcgatgtgtt ttttcctcca gttccacagg gcttcaagca aacatttgag 420
caaagtttca gttcaaatat tgattacacg taccaaattt gggcaaaggg ctaa 474

<210> 1481
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1481
rttacagatc atktatatgt ctct 24

<210> 1482
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1482
taatttatat tagacawaaa aaactg 26

<210> 1483
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1483
carygtcaga aaatggcgta atc 23

<210> 1484
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1484
tkcaaagcrw tttctattga aggaaa 26

<210> 1485

<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1485
aaaatggcgt aatcggtaat ggc 23

<210> 1486
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1486
catttgagct tgaaattcct ttcctc 26

<210> 1487
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1487
aatcgaaaat atgcagtagt gtcgag 26

<210> 1488
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1488
agactattgt agatttgacc gcca 24

<210> 1489
<211> 474
<212> DNA
<213> Escherichia coli strain VA292

<400> 1489
ttgaaaattt cattgatttc tgcaacgtca gaaaatggcg taatcggtaa tggccctgat 60
atcccatggt cagcaaaagg tgagcagtta ctctttaaag cgctcacata taatcagtgg 120
ctccttgttg gaaggaaaac atttgactct atgggtgttc ttccaaatcg aaaatatgca 180
gtagtgtcga ggaaaggaat ttcaagctca aatgaaaatg tattagtctt tccttcaata 240
gaaatcgctt tgcaagaact atcgaaaatt acagatcatt tatatgtctc tggtggcggt 300
caaatctaca atagtcttat tgaaaaagca gatataattc atttgtctac tgttcacgtt 360
gaggttgaag gtgatatcaa ttttcctaaa attccagaga atttcaattt ggtttttgag 420
cagttttttt tgtctaatat aaattacaca tatcagattt ggaaaaaagg ctaa 474

<210> 1490
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1490
gacctatgag agcttgcccg tcaaa 25

<210> 1491
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1491
tcgccttcgt acagtcgctt aacaaa 26

<210> 1492
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1492
cattttagct gccaccgcca atggtt 26

<210> 1493
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1493
gcgtcgctga cgttgttcac gaaga 25

<210> 1494
<211> 510
<212> DNA
<213> Escherichia coli strain BL26A

<400> 1494
atgatcgagc ttcatgccat tttagctgcc accgccaatg gttgcattgg gaaggacaac 60
gcacttccct ggccaccact aaaaggcgat ctggccagat tcaaaaaatt gaccatgggg 120
aaggtggtca ttatggggcg caagacctat gagagcttgc ccgtcaaatt agaaggtcgc 180
acctgcatcg ttatgacgcg ccaagcgctg gagcttccgg gtgttcgtga cgctaacggc 240
gctatcttcg tgaacaacgt cagcgacgcc atgcggttcg ctcaagaaga gagcgtgggc 300
gatgtggcct acgtcattgg tggcgctgag atattcaagc gacttgcctt gatgatcacg 360
cagattgaat tgacctttgt taagcgactg tacgaaggcg acacctacgt tgatctggcc 420
gaaatggtca aagactacga gcagaatggc atggaagaac atgaccttca cacttacttc 480

acttaccgta aaaaggagct tacagaatga 510

<210> 1495
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1495
tctctaaaca tgattgtcgc tgtc 24

<210> 1496
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1496
cagtgaggca aaagtttttc tacc 24

<210> 1497
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1497
cggacgactt catgtggtag tcagt 25

<210> 1498
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1498
tttgttttca gtaatggtcg ggacct 26

<210> 1499
<211> 534
<212> DNA
<213> Escherichia coli

<400> 1499
atggcttctc taaacatgat tgtcgctgtc aataagacag gaggtatcgg atttgaaaat 60
cagattccgt ggcatgaacc agaagattta aaacacttca aagctgttac aatgaactca 120
gttttgatta tgggtagaaa aacttttgcc tcactgccta aagtgctgcc cggacgactt 180
catgtggtag tcagtaaaac agtaccaccc acccagaaca ctgatcaagt tgtgtatgta 240
agtacatacc agatcgcagt aagaactgca agcttgttgg ttgacaaacc agagtattct 300

caaatttttg taattggtgg gaagagtgcg tacgagaact tagctgccta cgtggacaaa 360
ctctacttaa ctagagtaca gctcaacaca caacaagaca ctgaactgga tttatcccta 420
ttcaagtcat ggaaactcgt atctgaggtc ccgaccatta ctgaaaacaa aacaaaactt 480
attttccaaa tttggattaa ccctaaccct attagtgagg aacccacatg ttag 534

<210> 1500
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1500
atcgggttat tggcaatggt ccta 24

<210> 1501
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1501
gcggtagtta gcttggcgtg agatt 25

<210> 1502
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1502
gcgggcggag ctgagatata ca 22

<210> 1503
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1503
aacggagtgg gtgtacggaa ttacag 26

<210> 1504
<211> 498
<212> DNA
<213> Escherichia coli strain TKS84

<400> 1504
atgaactcgg aatcagtacg catttatctc gttgctgcga tgggagccaa tcgggttatt 60
ggcaatggtc ctaatatccc ctggaaaatt ccgggtgagc agaagatttt tcgcagactc 120

actgagggaa aagtcgttgt catggggcga aagacctttg agtctatcgg caagcctcta 180
ccgaaccgtc acacattggt aatctcacgc caagctaact accgcgccac tggctgcgta 240
gttgtttcaa cgctgtcgca cgctatcgct ttggcatccg aactcggcaa tgaactctac 300
gtcgcgggcg gagctgagat atacactctg gcactacctc acgcccacgg cgtgtttcta 360
tctgaggtac atcaaacctt cgagggtgac gccttcttcc caatgctcaa cgaaacagaa 420
ttcgagcttg tctcaaccga aaccattcaa gctgtaattc cgtacaccca ctccgtttat 480
gcgcgtcgaa acggctaa 498

<210> 1505
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1505
atttttcgca ggctcaccga gagc 24

<210> 1506
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1506
cggatgagac aacctcgaat tctgctg 27

<210> 1507
<211> 498
<212> DNA
<213> Escherichia coli strain RA33.2

<400> 1507
atgaacccgg aatcggtccg catttatctg gtcgctgcca tgggtgccaa tcgggttatt 60
ggcaatggtc ccgatatccc ctggaaaatc ccaggtgagc agaagatttt tcgcaggctc 120
accgagagca aagtggtcgt tatgggccgc aagacatttg agtccatagg caagccctta 180
ccaaaccgcc acacagtggt gctctcgcgc caagctggtt atagcgctcc tggttgtgca 240
gttgtttcaa cgctgtcaca cgtatcgcca tcgacagccg aacacggcaa agaactctac 300
gtagcgcgcg gagccgaggt atatgcgctg gcgctaccgc atgccaacgg cgtctttcta 360
tctgaggtac atcaaacctt tgagggtgac gccttcttcc cagtgcttaa cgcagcagaa 420
ttcgaggttg tctcatccga aaccattcaa ggcacaatca cgtacacgca ctccgtctat 480
gcgcgtcgta acggctaa 498

<210> 1508
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1508
agaatgtatt ggtatttcca tctatcg 27

<210> 1509

<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1509
caatgtcgat tgttgaaata tgtaaa 26

<210> 1510
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1510
tggagtgcca aaggggaaca at 22

<210> 1511
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1511
cagacacaat cacatgatcc gttatcg 27

<210> 1512
<211> 474
<212> DNA
<213> Escherichia coli strain UI14

<400> 1512
gtgaaactat cactaatggc agcaatttcg aagaatggag ttatcggaaa tggcccagat 60
attccatgga gtgccaaagg ggaacaatta ctcttcaaag cgattaccta taatcagtgg 120
cttttggtag gccgaaagac tttcgagtca atgggggctt tacccaaccg aaaatatgcc 180
gttgtaactc gttcaagctt cacttccagt gatgagaatg tattggtatt tccatctatc 240
gatgaagcgc taaatcatct gaagacgata acggatcatg tgattgtgtc tggtggtggt 300
gaaatataca aaagcctgat cgataaagtt gatactttac atatttcaac aatcgacatt 360
gagccagaag gtgatgtcta ttttccagaa atccccagta gttttaggcc agtttttagc 420
caagacttcg tgtctaacat aaattatagt taccaaatct ggcaaaaggg ttaa 474

<210> 1513
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1513
ttcaagctca aatgaaaacg tcc 23

<210> 1514
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1514
gaaattctca ggcattatag ggaat 25

<210> 1515
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1515
gtggtcagta aaaggtgagc aac 23

<210> 1516
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1516
tctttcaaag cattttctat tgaagg 26

<210> 1517
<211> 474
<212> DNA
<213> Escherichia coli strain EC107

<400> 1517
ttgaaaatat cattgatttc tgcagtgtca gaaaatggcg taatcggtag tggtcctgat 60
atcccgtggt cagtaaaagg tgagcaacta ctctttaaag cgctcacata taatcaatgg 120
ctccttgtcg gaagaaaaac atttgactct atgggtgttc ttccaaatcg caaatatgca 180
gtagtgtcaa agaacggaat ttcaagctca aatgaaaacg tcctagtttt tccttcaata 240
gaaaatgctt tgaaagagct atcaaaagtt acagatcatg tatatgtctc tggcgggggt 300
caaatctata atagccttat tgaaaaagca gatataattc atttgtctac tgttcacgtt 360
gaagtcgaag gtgatatcaa attccctata atgcctgaga atttcaattt ggtttttgaa 420
cagtttttta tgtctaatat aaattataca taccagattt ggaaaaaagg ctaa 474

<210> 1518
<211> 125
<212> DNA
<213> Acinetobacter lwoffi strain CDCF 3697

<400> 1518
ctatgtctca aggccgtgca acatactcta tggaatttgc taaatatgct gaaactccac 60
gtaacgtggc tgaaggcatc atttctaaat ttcagtctgg cggtaaaaaa ggtgacgacg 120
agtaa 125

<210> 1519
<211> 93
<212> DNA
<213> Acinetobacter lwoffii strain CDCF 3697

<400> 1519
tctttcgatt actataagcc caaactaatt catagttaaa aaccaagtgc tcatgcagtg 60
atcctgcatg agtagtttaa aaaggaagat ctc 93

<210> 1520
<211> 1106
<212> DNA
<213> Acinetobacter lwoffii strain CDCF 3697

<400> 1520
atggctaagg ctaagtttga acgtaataag ccacacgtta acgtgggcac aatcggtcac 60
gttgaccatg gtaaaacaac tttaacagct gcaattgcaa ctgtatgtgc gaagaaattc 120
ggtggcgaag cgaaagacta cgctgcaatt gactctgcac cagaagaaaa agcacgtggt 180
attacaatta atacttcaca cgtagaatac gattctccaa ctcgtcacta cgcacacgta 240
gactgcccgg gccacgccga ttatgttaaa aacatgatta ctggtgctgc tcagatggac 300
ggcgcgatcc ttgtatgtgc tgcgactgat ggtccaatgc cacagactcg tgaacacatc 360
cttctttctc gtcaggttgg tgtaccttac attcttgtat tccttaacaa gtgtgacctt 420
gttgatgatg aagaacttct tgagctagtg gaaatggaag ttcgtgaact tctttctact 480
tatgacttcc caggtgatga cactccagtt atccgtggtt cagctcttct tgcacttaac 540
ggtgacgctg gtcagtatgg cgaagaagca gttgttgcgc ttgttgacgc acttgacact 600
tacattccag agccagtacg tgcaatcgac caagcattct taatgccaat cgaagacgta 660
ttctctattt ctggtcgtgg tacagtagta actggccgtg tagaaactgg tattgtgaaa 720
gtaggcgaat cagttgaaat cgttggtatc cgtgatactc aagtaactac agttactggc 780
gtagaaatgt tccgtaaatt gcttgacgaa ggtcgtgcgg gcgagaactg tggtgttctt 840
ctacgtggta ctaagcgtga agacgtacaa cgtggtcaag tacttgctaa accaggtgca 900
atcaagccac acactaaatt cgatgcagaa gtatacgtac tttctaaaga agaaggtggt 960
cgtcacactc cattccttaa cggttaccgt ccacagttct acttccgtac aactgacgta 1020
actggcgcga tcaaattaca agatggcgtt gaaatggtta tgcctggtga caacgtagaa 1080
atgtcagtag aattaatcca cccaat 1106

<210> 1521
<211> 100
<212> DNA
<213> Haemophilus influenzae ATCC 9006

<400> 1521
acaaactcaa ggtcgtgcat cttactcaat ggaaccgtta aaatatgctg aagctccaac 60
aagtgttgcg gctgcagtaa ttgaagcgcg taaaaaataa 100

<210> 1522
<211> 64
<212> DNA
<213> Haemophilus influenzae ATCC 9006

<400> 1522
tttttgtaaa ccagcggtgt aaaatatgat tgttttatac cgcacttctt aggaaacatt 60
agaa 64

<210> 1523
<211> 1098
<212> DNA
<213> Haemophilus influenzae ATCC 9006

<400> 1523
atgtctaaag aaaaatttga acgtacaaaa ccgcacgtaa acgtgggtac aatcggccac 60
gttgaccacg gtaaaacaac tttaacagca gcaattacaa ccgtattagc aaaacactac 120
ggtggtgcag cgcgtgcatt tgaccaaatc gataacgcgc cagaagaaaa agcgcgtggt 180

attaccatca acacttcaca tgttgaatac gatacaccaa ctcgccacta tgcacacgta 240
gactgtccag gacacgccga ctatgttaaa aacatgatta ccggtgcggc gcaaatggat 300
ggtgctattt tagtagtagc agcaacagat ggtcctatgc cacaaactcg tgaacatatc 360
ttattaggtc gccaagtagg tgttccatac atcatcgtat tcttaaacaa atgcgacatg 420
gtagatgatg aagagttatt agaattagta gaaatggaag tgcgtgaact tctatctcaa 480
tatgacttcc caggtgacga tacaccaatc gtacgtggtt cagcattaca agcattgaac 540
ggcgtagcag aatgggaaga aaaaatcctt gaattagctg gtcacttaga tacttacatc 600
ccagaaccag aacgtgcgat tgaccaaccg ttccttcttc caattgaaga cgtattctca 660
atttcaggtc gtggtacagt agtaactggt cgtgtagaac gtggtatcat ccgtactggt 720
gatgaagtag aaatcgtcgg tatcaaagat acagcgaaaa ctactgtaac aggtgttgaa 780
atgttccgta aattacttga cgaaggtcgt gcaggtgaaa acatcggtgc attattacgt 840
ggtaccaaac gtgaagaaat cgaacgtggt caagtattag cgaaaccagg ttcaatcaca 900
ccacacactg attttgaatc agaagtatac gtattatcaa aagatgaagg tggtcgtcat 960
actccattct tcaaaggtta ccgtccacaa ttctatttcc gtacaacaga cgtaactggt 1020
acaattgaat taccagaagg cgtggaaatg gtaatgccag gcgataacat caagatgaca 1080
gtaagcttaa tccaccca 1098

<210> 1524
<211> 77
<212> DNA
<213> Proteus mirabilis ATCC 25933

<400> 1524
caatggagtt cttgaagtac aacgaagcgc ctagcaacgt cgctcaggct attatcgaag 60
ctcgtaaagc gaaataa 77

<210> 1525
<211> 67
<212> DNA
<213> Proteus mirabilis ATCC 25933

<400> 1525
gatcctttcg agttcaattt agtttacgct ccctctgtga gagggagcga tattaaggaa 60
tatagtc 67

<210> 1526
<211> 1112
<212> DNA
<213> Proteus mirabilis ATCC 25933

<400> 1526
gtgtctaaag aaaaatttga acgttcaaaa ccgcacgtta acgttggtac tatcggccac 60
gttgaccacg gtaaaacaac tctgactgct gcaatcacta cagttttagc taaaacttac 120
ggtggtgctg ctcgtgcatt cgaccaaatc gataatgcac cagaagaaaa agcgcgtggt 180
atcaccatct ctacttcaca cgtagaatac gatactccaa ctcgccacta cgcacacgta 240
gactgcccag gtcacgccga ctatgttaaa aacatgatca ctggtgctgc gcaaatggac 300
ggcgctattc tggtagtagc agcaactgat ggtccaatgc cacaaactcg tgagcacatc 360
ctgttaggtc gtcaggttgg tgttccttac atcatcgtat tcctgaacaa atgtgacatg 420
gtagatgatg aagagctgtt agaattagtt gaaatggaag ttcgtgaact tctgtctcaa 480
tacgatttcc caggtgatga cactccagta atccgtggtt cagcgctgaa agcactggaa 540
ggcgaagcag agtgggaagc aaaaattgtt gaattagcag aagcactgga ttcttatatc 600
ccagagccag agcgtgcaat tgacaaacca ttcctgttac caatcgaaga tgtattctca 660
atctcaggcc gtggtacagt agttactggt cgtgtagagc gtggtatcat caaagtaggt 720
gatgaagttg agattgttgg tatcaaagaa accaccaaaa caacttgtac tggcgttgaa 780
atgttccgta aattacttga cgaaggtcgt gcaggtgaga acgtaggtgt tctgctgcgt 840
ggtacaaaac gtgaagaaat cgaacgtgga caagtactgg caaaaccagg ctcaatcaac 900
ccacacaaca aatttgaatc agaagtttat attctgagca aagatgaagg tggtcgtcac 960
acaccattct tcaaaggcta ccgtccacag ttctacttcc gtacaactga cgtaactggt 1020
actatcgaat taccagaagg cgtagaaatg gtaatgccag gcgacaacgt gaacatgatc 1080
gttgaactga tccacccaat cgcaatggac ga 1112

<210> 1527

<211> 800
<212> DNA
<213> Campylobacter curvus ATCC 35224

<400> 1527
atcaacgaag ctatcgaggt ttattttgag gttgagggca agaaaaatag attgatcctg 60
gaggtcgcgg ctcacttggg tgataaccgc gtcagaacga tcgctatgga tatgagtgag 120
gggcttactc gcgggcttga agctaccgct cttggtgcgc ctattagtgt gccggttggc 180
gagaaggttt tgggaagaat ttttaacgtc gtcggcgatc tcatcgacga gggcgagggc 240
gtaaattttg ataaacattg gtctatccac cgcgatccgc caccatttga agaacaaagc 300
acgaaaagtg aaatttttga aaccggtata aaggttgtgg atcttcttgc gccttacgca 360
aagggcggta aggtcggact atttggcggt gcaggtgtcg gtaaaacggt catcatcatg 420
gagctcatcc acaatgtcgc cttcaaacac agcggatact ctgtatttgc aggtgttggc 480
gagaggacgc gcgaaggaaa cgacctttat cacgagatga aagaaagtaa cgttttggat 540
aaagtcgcct tgtgctacgg acagatgaac gagccgccag gggcgagaaa tcgtatcgca 600
ctgactggtc taacgatggc tgagtatttc cgcgatgaga tgggacttga tgtgcttatg 660
tttatcgaca acatcttccg cttctctcaa tctggtgcag agatgtcggc actcctcgga 720
cgtatcccat cagccgttgg ttaccagccg acgctggcaa gcgagatggg taaatttcaa 780
gaaaggatca catcgactaa 800

<210> 1528
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1528
aacttgagcg attttcggat accctg 26

<210> 1529
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1529
ttgccgatga ataaccgcc gact 24

<210> 1530
<211> 1035
<212> DNA
<213> Escherichia coli

<400> 1530
atgcgattgg tttggaaatg tggggcgatt caggcatccc ggttatctga atggctcaac 60
tcaacagccg gtgctcatga acttgagcga ttttcggata ccctgacctt ttctgtgtat 120
ggctcagtgc tgatctggct gaaatcatat ctccgcgaat caggaagaaa actgcagtta 180
gtcggaatcg ccttacccaa caccctgaac ccaagggacg acctagcgca attggccgaa 240
attatccagc tcatcgatca cctcatgaaa ccgcacgttg atatgttgac tcacttgttg 300
gcgtccattg atggccagtc ggcggttatt tcatcggcaa aatgggggga gctagaaacg 360
gctcggcagg agaaagctat ctcaggggta accagattga agctccgctt ggcgtcgctt 420
gccccccgtcc tgaaaaaaca cgtcaacagc gatttgttcc gaaaagcctc tgatcgaata 480
gagtcgatag agtatacgtt ggaaaccttg cgtataatga aaactttctt cgatggtacc 540
tctcttgagg gagatacttc cgtacgtgac tcgtatatgg cgggcgtagt agatggaatg 600
gttcgagcga atccggatgt gaagataatt ctgctggcgc acaacaatca tctacaaaaa 660
actccagtct ccttttcagg cgagcttacg gctgttccca tggggcagca cctcgcagag 720
agggtgaatt accgtgcgat tgcattcacc catcttggac ccaccgtgcc ggaaatgcat 780

ttcccatcgc caaaaagtcc tcttggattc tctgttgtga ccacgcctgc cgatgcaatc 840
cgtgaggata gtatggaaca gtatgtcatc gacgcctgtg gtacggagaa ttcatgtctg 900
acattgacag atgcccccat ggaagcaaag cgaatgcggt ctcaaagcgc ctctgtagaa 960
acgaaattga gcgaggcatt tgatgccatc gtctgtgtta caagcgccgg caaggacagc 1020
ctggttgccc tatag 1035

<210> 1531
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1531
tctttttgtt acgacatacg ctttt 25

<210> 1532
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1532
agtgcttctt tatccgctgt tcta 24

<210> 1533
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1533
cagcggataa agaagcacta cacatt 26

<210> 1534
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1534
cctcctgaaa taaagcccga cat 23

<210> 1535
<211> 1260
<212> DNA
<213> Escherichia coli

<220>
<221> misc_feature

<222> (41)..(41)
<223> n represents any nucleotide

<220>
<221> misc_feature
<222> (47)..(47)
<223> n represents any nucleotide

<220>
<221> misc_feature
<222> (93)..(93)
<223> n represents any nucleotide

<220>
<221> misc_feature
<222> (1170)..(1170)
<223> n represents any nucleotide

<400> 1535
atgaggttcg aagaatgggt caaagataag catattcctt ncaaacngaa tcaccctgat 60
gataattacg atgattttaa gccattaaga aanataattg gagatacccg agttgtagca 120
ttaggtgaaa attctcattt cataaaagaa ttctttttgt tacgacatac gcttttgcgt 180
ttttttatcg aagatctagg ttttactacg tttgcttttg aatttggttt tgctgagggt 240
caaatcatca ataactggat acatggacaa ggaactgacg atgaaatagg cagattctta 300
aaacacttct attatccaga agagctcaaa accacatttc tatggctaag ggagtacaat 360
aaagcagcaa aagaaaaaat cacatttctt ggcattgata tacccagaaa tggaggttca 420
tacttaccaa atatggagat agtgcatgac ttttttagaa cagcggataa agaagcacta 480
cacattatcg atgatgcatt taatattgca aaaaagattg attacttctc cacatcacag 540
gcagccttaa atttacatga gctaacagat tctgagaaat gccgtttaac tagccaatta 600
gctcgagtaa aagttcgcct tgaagctatg gctccaattc acattgaaaa atatgggatt 660
gataaatatg agacaattct gcattatgcc aacggtatga tatacttgga ctataacatt 720
caagctatgt cgggctttat ttcaggaggc ggaatgcagg gcgatatggg tgcaaaagac 780
aaatacatgg cagattctgt gctgtggcat ttaaaaaacc cacaaagtga gcagaaagtg 840
atagtagtag cacataatgc acatattcaa aaaacaccca ttctgtatga tggatttcta 900
agttgcctac caatgggcca aagacttaaa aatgccattg gtgatgatta tatgtcttta 960
ggtattactt cttatagtgg gcatactgca gccctctatc cggaagttga tacaaaatat 1020
ggttttcgag ttgataactt ccaactgcag gaaccaaatg aaggttctgt cgagaaagct 1080
atttctggtt gtggagttac taattctttt gtctttttta gaaatattcc tgaagattta 1140
caatccatcc cgaacatgat tcgatttgan tctatttaca tgaaagcaga actcgagaaa 1200
gctttcgatg gaatatttca aattgaaaag tcatctgtat ctgaggtcgt ttatgaataa 1260

<210> 1536
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1536
agatgtatta actggaaaac aacaa 25

<210> 1537
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1537

ctttgtaatt agtttctgaa aacca 25

<210> 1538
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1538
ttagaagata taggatacaa aatagaag 28

<210> 1539
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1539
gaatgaaaaa gaagttgagc tt 22

<210> 1540
<211> 486
<212> DNA
<213> Staphylococcus haemolyticus

<400> 1540
atgaaaaata ataatgtaac agaaaaagaa ttattttata ttttagattt atttgaacac 60
atgaaagtaa cttattggtt agatggtggc tgggggggtag atgtattaac tggaaaacaa 120
caaagagaac acagagatat agatatagat tttgacgctc aacacactca aaaagttata 180
caaaaattag aagatatagg atacaaaata gaagttcatt ggatgccttc acgtatggaa 240
cttaagcatg aagaatatgg gtatttagat attcatccta taaatctaaa tgatgatgga 300
tcaattaccc aagcaaaccc agaaggtggt aattatgttt tccaaaatga ctggttttca 360
gaaactaatt acaaagatcg aaaaatacca tgtatttcaa aagaagctca acttcttttt 420
cattctggtt atgatttaac agaaacagac cattttgata taaaaaattt aaaatcaata 480
acataa 486

<210> 1541
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1541
tgataatctt atacgtgggg aattt 25

<210> 1542
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

Oligonucleotide

<400> 1542
ataattttct aattgccctg tttcat 26

<210> 1543
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1543
gggcaattag aaaattattt atcaga 26

<210> 1544
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1544
ttttactcat gtttagccaa ttatca 26

<210> 1545
<211> 804
<212> DNA
<213> Enterococcus faecium

<400> 1545
atgttaaaac aaaaagaatt aattgcaaac gttaagaatc ttactgagtc agatgaacga 60
attacagctt gtatgatgta tggatcgttt accaaaggag aaggtgacca atactctgat 120
atagagttct atatattttt gaaacatagt ataacctcga actttgattc atccaactgg 180
ttgtttgacg tagctccgta cttgatgctt tataaaaatg agtacggaac agaggtagtt 240
atttttgata atcttatacg tggggaattt catttccttt ctgaaaaaga tatgaacata 300
atcccctcgt ttaaagattc aggttatatt cctgatacga aggctatgct tatttacgat 360
gaaacagggc aattagaaaa ttatttatca gagataagtg gtgcaagacc aaatagactt 420
actgaagaaa atgctaattt tttgttgtgt aatttctcta atctatggtt gatgggaatc 480
aacgttctaa aaagaggaga atatgctcgt tcattagaac tcttatcaca acttcaaaaa 540
aatacactac aacttatacg tatggcagaa aaaaatgctg ataattggct aaacatgagt 600
aaaaaccttg aaaaagaaat tagccttgaa aattataaaa aatttgcaaa gaccactgct 660
cgattagata aggtagaatt atttgaagcc tataaaaatt ctttgctatt agttatggat 720
ttgcaaagtc accttattga acaatacaac ttaaaagtta cacatgacat tttagaaaga 780
ttgttgaatt acattagtga atag 804

<210> 1546
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1546
caagaaggaa tggctgtact ac 22

<210> 1547
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1547
taattcccaa ataaccctaa taataga 27

<210> 1548
<211> 1218
<212> DNA
<213> Streptococcus pyogenes

<400> 1548
atggaaaaat acaacaattg gaaacttaag ttttatacaa tatgggcagg gcaagcagta 60
tcattaatca ctagtgccat cttgcaaatg gcgattattt tttaccttac agaaaaaact 120
ggatccgcga tggtcttgtc tatggcttca ctattaggtt ttttacccta tgcggtcttt 180
ggacctgcaa ttggtgtgct agtggatcgt catgatagga agaagataat gattggtgct 240
gatttaatta tcgcagcagc tggttcggtg cttactattg ttgcattcta tatggagcta 300
cctgtctgga tggttatgat agtattgttt atccgtagca ttggaacagc ttttcacacc 360
ccggctctca atgcggttac gccacttttа gtaccagaag aacagcttac gaaatgtgca 420
ggctatagtc agtctttgca gtctataagc tatattgtta gtccggcggt tgcagcactc 480
ttatactccg tttgggaact aaatgctatt attgccatcg atgtattggg tgctgtgatt 540
gcatctatta cggtagcaat tgtacgtatt cctaagctgg gtgatcgcgt gcaaagtttg 600
gacccaaatt tcataagaga aatgcaagaa ggaatggctg tactacggca aaataaagga 660
ttatttgctt tattactcgt tggaacatta tatatgtttg tttatatgcc aattaatgca 720
ctattccctt taattagcat ggattacttt aatggaacac ctgtgcatat ttctattacg 780
gaaatttcct ttgcatctgg aatgttgata gggggtctat tattagggtt atttgggaat 840
taccaaaagc gaatcttatt aataacggca tccattttta tgatggggat aagcttaacc 900
atttcaggat tacttcccca aagtggattt ttcatttttg tagtctgctg tgcaataatg 960
gggctttctg ttccgtttta cagcggtgtg caaacagctc tttttcagga gaaaattaag 1020
cctgaatatt taggacgtgt attttcttta actggaagta tcatgtctct tgctatgcca 1080
attggattaa ttctttctgc actctttgct gatagaatcg gtgtaaatca ttggttttta 1140
ctatcaggta ctttaattat ttgcattgca atagtttgcc caatgataaa tgagattaga 1200
aaattagatt taaaataa 1218

<210> 1549
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1549
gcttattatt aggaagatta gggggc 26

<210> 1550
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1550
tagcaagtga catgatactt ccga 24

<210> 1551
<211> 1218
<212> DNA
<213> Streptococcus pneumoniae

<400> 1551
atggaaaaat acaacaattg gaaacgaaaa ttttatgcaa tatgggcagg gcaagcagta 60
tcattaatca ctagtgccat cctgcaaatg gcgattattt tttaccttac agaaaaaaca 120
ggatctgcga tggtcttgtc tatggcttca ttagtaggtt ttttacccta tgcgattttg 180
ggacctgcca ttggtgtgct agtggatcgt catgatagga agaagataat gattggtgcc 240
gatttaatta tcgcagcagc tggtgcagtg cttgctattg ttgcattctg tatggagcta 300
cctgtctgga tgattatgat agtattgttt atccgtagca ttggaacagc ttttcatacc 360
ccagcactca atgcggttac accactttta gtaccagaag aacagctaac gaaatgcgca 420
ggctatagtc agtctttgca gtctataagc tatattgtta gtccggcagt tgcagcactc 480
ttatactccg tttgggattt aaatgctatt attgccatcg acgtattggg tgctgtgatt 540
gcatctatta cggtagcaat tgtacgtata cctaagctgg gtaatcaagt gcaaagttta 600
gaaccaaatt tcataaggga gatgaaagaa ggagttgtgg ttctgagaca aaacaaagga 660
ttgtttgcct tattactctt aggaacacta tatacttttg tttatatgcc aatcaatgca 720
ctatttcctt taataagcat ggaacacttt aatggaacgc ctgtgcatat ttctattacg 780
gaaatttcct ttgcatttgg gatgctagca ggaggcttat tattaggaag attaggggc 840
ttcgaaaagc atgtattact aataacaagt tcatttttta taatggggac cagtttagcc 900
gtttcgggaa tacttcctcc aaatggattt gtaatattcg tagtttgctg tgcaataatg 960
gggctttcgg tgccatttta tagcggtgtg caaacagctc tttttcagga gaaaattaag 1020
cctgaatatt taggacgtgt attttctttg atcggaagta tcatgtcact tgctatgcca 1080
attgggttaa ttctttctgg attctttgct gataaaatcg gtgtaaatca ttggttttta 1140
ctatcaggta ttttaattat tggcattgct atagtttgcc aaatgataac tgaggttaga 1200
aaattagatt taaaataa 1218

<210> 1552
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1552
ggcaagcagt atcattaatc acta 24

<210> 1553
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1553
caatgctacg gataaacaat actatc 26

<210> 1554
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1554

agaaaattaa gcctgaatat ttaggac 27

<210> 1555
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1555
tagtaaaaac caatgattta caccg 25

<210> 1556
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1556
actgtacgca cttgcagccc gacat 25

<210> 1557
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1557
gaacggcagg cgattcttga gcat 24

<210> 1558
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1558
gtggtggtgc atggcgatct ct 22

<210> 1559
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1559
gccgcagcga ggtactcttc gtta 24

<210> 1560
<211> 906
<212> DNA
<213> Escherichia coli

<400> 1560
atgaccgtag tcacgaccgc cgatacctcc caactgtacg cacttgcagc ccgacatggg 60
ctcaagctcc atggcccgct gactgtcaat gagcttgggc tcgactatag gatcgtgatc 120
gccaccgtcg acgatggacg tcggtgggtg ctgcgcatcc cgcgccgagc cgaggtaagc 180
gcgaaggtcg aaccagaggc gcgggtgctg gcaatgctca agaatcgcct gccgttcgcg 240
gtgccggact ggcgcgtggc caacgccgag ctcgttgcct atcccatgct cgaagactcg 300
actgcgatgg tcatccagcc tggttcgtcc acgcccgact gggtcgtgcc gcaggactcg 360
gaggtcttcg cggagagctt cgcgaccgcg ctcgccgccc tgcatgccgt ccccatttcc 420
gccgccgtgg atgcggggat gctcatccgt acaccgacgc aggcccgtca gaaggtggcc 480
gacgacgttg accgcgtccg acgcgagttc gtggtgaacg acaagcgcct ccaccggtgg 540
cagcgctggc tcgacgacga ttcgtcgtgg ccagatttct ccgtggtggt gcatggcgat 600
ctctacgtgg gccatgtgct catcgacaac acggagcgcg tcagcgggat gatcgactgg 660
agcgaggccc gcgttgatga ccctgccatc gacatggccg cgcaccttat ggtctttggt 720
gaagaggggc tcgcgaagct cctcctcacg tatgaagcgg ccggtggccg ggtgtggccg 780
cggctcgccc accacatcgc ggagcgcctt gcgttcgggg cggtcaccta cgcactcttc 840
gccctcgact cgggtaacga agagtacctc gctgcggcga aggcgcagct cgccgcagcg 900
gaatga 906

<210> 1561
<211> 1048
<212> DNA
<213> Candida albicans ATCC 18804

<400> 1561
gatcatggta aaactacatt gactgctgct atcaccaaag ttttagccga acaaggtggt 60
gccaacttct tggattaygg ttctattgat agagctccag aagaaagagc tagaggtatc 120
actatttcca ctgcccacgt tgaatacgaa accaagaaca gacactatgc ccacgttgat 180
tgtccaggac acgctgatta tatcaaaaat atgattactg gtgccgctca aatggatggt 240
gctatcattg ttgttgctgc cactgatggt caaatgcctc aaaccagaga acatttgtta 300
ttggccagac aagttggtgt tcaagacttg gttgtgtttg tcaacaaagt cgatactatt 360
gatgaccctg aaatgttgga attagtcgaa atggaaatga gagaattgtt atccacctac 420
ggttttgatg gtgacaacac tccagttatt atgggatctg ctttaatggc tttggaagac 480
aagaaaccag aaattggtaa ggaagctatc ttgaaattgt tagatgctgt cgatgaacac 540
attccaactc catcaagaga cttggaacaa ccatttttgt taccagttga agacgtgttc 600
tccatctccg gtagaggaac tgttgtcact ggtagagttg aaagaggtgt tttgaagaag 660
ggtgaagaaa tcgaaattgt tggtggtttt gacaaacctt acaagactac tgttaccggt 720
attgaaatgt tcaaaaaaga attagactct gctatggctg gtgacaactg tggtgttttg 780
ttaagaggtg ttaaaagaga tgaaatcaag agaggtatgg ttttggccaa accaggtact 840
gccacttctc acaagaagtt cttggcttcc ttgtatattt tgacttccga agaaggtggy 900
cgttccactc catttggtga aggttacaag cctcaatgct tcttcagaac taacgatgtc 960
actaccacat tttcattccc agaaggagaa ggtgttgacc attctcaaat gatcatgcca 1020
ggtgacaaca ttgaaatggt tggtgaat 1048

<210> 1562
<211> 1074
<212> DNA
<213> Candida dubliniensis strain NCPF 3949

<400> 1562
tgatcacggt aaaaccacat taactgctgc cattaccaaa gtattagctg aacaaggtgg 60
tgccaacttt ttggattacg gttccattga tagagctcca gaagaaagag ccagaggtat 120
cactatttcc actgcccacg ttgaatacga aaccaagaac agacactatg cccacgttga 180
ttgtccagga cacgctgatt atatcaaaaa catgattact ggtgctgctc aaatggatgg 240
tgctatcatt gttgttgctg ctactgacgg tcaaatgcca caaaccagag aacatttatt 300
gttggcaaga caagttggtg ttcaagactt ggttgtcttt gtcaacaaag ttgatactat 360
tgatgaccct gagatgttgg aattagtcga aatggaaatg agagaattgt tgtccaccta 420
cggttttgat ggtgacaaca ctcctgttat tatgggatct gctttaatgg ccttggaagg 480
caaaaaacca gaaattggta aggaagctat tttgagattg ttagatgctg tcgatgaaca 540

cattccaact ccatcaagag acttggaaca accatttttg ttgccagttg aagacgtgtt 600
ctccatctct ggtagaggaa ctgttgtcac cggtagagtt gaaagaggtg tcttgaagaa 660
gggtgaagaa atcgaaattg ttggtggttt tgacaaacca tacaagacca ctgttactgg 720
tattgaaatg ttcaaaaagg aattagattc tgctatagct ggtgacaact gtggtgtttt 780
gttgagaggt gttaaaagag atgaaatcaa gagaggtatg gttttggcca agccaggtac 840
tgctacttct cacaagaaat ttttagcatc tttgtatatt ttgacttcag aagaaggtgg 900
tcgttccact ccatttggag aaggttacaa gcctcaatgt ttcttcagaa ctaatgacgt 960
cactaccaca ttttcattcc cagaaggaga aggtgttgac cactcccaaa tggtcatgcc 1020
aggtgataac attgaaatgg ttggtgaatt gatcaaatca tgtccattgg aagt 1074

<210> 1563
<211> 1033
<212> DNA
<213> Candida famata ATCC 62894

<400> 1563
gatcacggga agactacttt gaccgctgcc atcaccaaag ttttagccga aaaaggtggt 60
gctaacttct tggactacgg ttctatcgat aaagctccag aagaaagagc cagaggtatt 120
actatttctg ctgcccatgt tgaatacgaa actgacaaga gacactatgc ccatgttgat 180
tgtccaggtc acgcagatta tatcaagaat atgattactg gtgctgctca aatggatggt 240
gccattattg ttgttgctgc ttccgatggt caaatgcctc aaaccagaga acatttgtta 300
ttggccagac aagttggtgt tcaacacttg gttgttttcg tcaacaaggt cgacaccatt 360
gacgatccag aaatgttgga attggttgaa atggaaatga gagatttgtt aactacttac 420
ggttttgatg gtgataacac cccagttatc atgggatctg ctttgtgtgc tttggaatcc 480
agagaaccag aaattggtca aaaagccatt gaaaaattgt tagatgccgt cgatgaatac 540
attccaaccc cagtcagaga cttggaacaa ccattcttga tgccagttga agaagttttc 600
tccatttccg gtagaggtac cgttgttgct ggtagagtcg aaagaggtac cttgaagaag 660
ggtgaagaaa tcgaaattgt tggtggtttc gacaagccat tcaaggccac tgttactggt 720
attgaaatgt tcaagaagga attggactcc gctcttgctg gtgacaactg tggtatcttg 780
ttgagaggtg tcaagagaga cgaagttaag agaggtatgg tcttgaccaa gccaaacacc 840
gtcacttccc acaagaagat cttggcctcg ttgtatatct tgaccaagga agaaggtggt 900
agacactctc catttggagc caactacaag ccccaattgt tcatgagaac caccgatgtt 960
accggtacca tgaccttccc agaaggtgcc gaccaatctg ccatggtcat gccaggtgac 1020
aacgttgaaa tgc 1033

<210> 1564
<211> 1056
<212> DNA
<213> Candida glabrata ATCC 66032

<400> 1564
gatcacggta agactacatt gacagctgct atcaccaaga cattggccaa gaacggtggt 60
gctgatttct tggactactc ttccattgac aaagctccag aggagagagc ccgtggtatc 120
actatctcta ctgcccatgt cgagtacgag accgccaaga gacattactc ccacgtcgac 180
tgtccaggtc acgccgacta catcaagaac atgattactg gtgctgccca aatggacggt 240
gctatcatcg ttgtcgccgc caccgatggt caaatgccac aaactagaga gcatttgctg 300
ttggccagac aagtcggtgt tcaacgtatc gttgtctttg tcaacaaggt ggacaccatc 360
gatgaccctg aaatgttgga attagtggaa atggaaatga gagaattgtt gaacgaatac 420
ggttttgacg gtgacaatgc ccctatcatt atgggttccg ctttgtgtgc cctagaaggt 480
cgtcaacctg aaattggtga gcaagctatc atgaaactat tggacgctgt tgatgaatac 540
attccaaccc cagaaagaga cttgaacaag ccattcttga tgcctgttga agacatcttc 600
tccatctctg gtagaggtac cgtcgtcact ggacgtgtcg aaagaggtaa cttgaagaag 660
ggtgaagaag ttgaaattgt tggtcacaac actaccccat tgaagaccac cgttactggt 720
atcgaaatgt tcagaaagga attggaccaa gctatggctg gtgacaacgc cggtatccta 780
ttgagaggta tcagaagaga ccaattgaag agaggtatgg tcatggccaa gccaggtacc 840
gtcaaggctc acaccaagat tttggcttct ttgtacatct tgtctaagga agaaggtggt 900
agacattctg gtttcggtga aaactacaga cctcagatgt ttatcagaac cgcagatgtc 960
actgttgtga tgaagttccc agaatctgtg gaagaccact ctatgcaagt tatgccaggt 1020
gacaacgtcg aaatggtctg tgaactagtc caccca 1056

<210> 1565
<211> 1061
<212> DNA

<213> Candida guilliermondii ATCC 6260

<400> 1565
gatcatggta agaccacttt gaccgctgct atcaccaagg ttttgtcgga aaaaggaggt 60
gctaatttct tggattacgg ctccatcgac agagctccag aagagagagc cagaggtatc 120
accatttcca ctgcccatgt tgagtaccaa actgataaga gacattatgc ccacgttgac 180
tgtccaggtc acgccgatta cattaagaat atgattactg gtgccgccca gatggacggt 240
gccattattg ttgttgctgc cactgacggt caaatgcctc agaccagaga gcacttgttg 300
ttggccagac aagttggtgt gcaacacttg gtagtttttg tgaacaaggt ggacaccatt 360
gacgatcccg agatgttgga attggtcgag atggaaatga gagaattgtt gagtcagtac 420
ggtttcgatg gtgacaacac cccagttatc atgggatctg ctttgtgtgc tttggaaagt 480
aagcagccag aaattggtgt gcaagccatt gaaaaattgt tggacgctgt cgatgagcac 540
attcctactc ctacccgtga cttggaacag ccattcttgt tgcctgttga agatgtgttc 600
tccatttctg gtagaggaac tgtggttact ggtagagtcg aaagaggttc gttgaagaag 660
ggtgaggaaa tcgagattgt tggtgacttt gacaagccat tcaagaccac tgtgactgga 720
attgaaatgt tcaagaagga attggatgct gctatggctg gtgacaatgc tggtatcttg 780
ttgagaggtg tcaagagaga cgatgtcaag agaggtatgg ttttggccaa gccttccacc 840
gtcacttctc acaagaaggt gttggcttcc ttgtacatct tgagtaagga agaaggtggc 900
cgtcactctc cttttggtga gaactacaag cctcaattgt tcatcagaac tactgacgtt 960
accggtactt taagattccc agccggcgag ggtgtcgacc actcgcaaat ggttatgcca 1020
ggtgacaatg ttgagatgga aattgagctt gtgagaaaga c 1061

<210> 1566
<211> 1073
<212> DNA
<213> Candida haemulonii ATCC 22991

<400> 1566
gatcacggta agactacctt gactgctgct atcaccaagg ttttggcttc taagggtggt 60
gctagcttct tggactatgg ttccattgac agagccccag aggagagagc tagaggtatt 120
actatttcta ctgcccacgt tgagtaccaa accgaaaaga gacactacgc ccacgtcgac 180
tgtccaggtc acgctgatta cattaagaat atgattactg gtgccgccca gatggacggt 240
gctatcattg ttgttgctgc ttctgatggt cagatgcctc agaccagaga gcacctttg 300
ttggccagac aggttggtgt tcagaacttg gttgttttcg ttaacaaggt tgacaccatt 360
gacgaccctg aaatgttgga attggttgag atggaaatga gagaattgtt gactacttac 420
ggttttgacg gtgatgagac tcctgttatc atgggttctg ctttgtgcgc tttggaagag 480
aagcaaccag agattggtga gcaggctatc atgaagttgt tggacgctgt cgatgagtac 540
attccaaccc cacagcgtga cttggagcag ccattcttga tgcctgttga ggatgttttc 600
tccatttctg gtagaggtac tgtcgttact ggtagagttg agagaggttc tttgaagaag 660
ggtgaggaaa tcgagattgt cggtgacttc gccaagactt tcaaggctac cgttactggt 720
attgagatgt tcaagaagga attggatgct gctatggctg gtgacaacgc cggtatcttg 780
ttgagaggtg tcaagagaga tgagatctcc cgtggtgatg tcttggccaa gccaggtact 840
gttactccac acaagaagat cttggcttct ttgtacgttt tgaccaagga agaaggtggt 900
cgtcacaacc cattcgctga gaactacaag ccacagttgt tcctcagaac caccaacgtc 960
actggtacca tgagattccc agaaggtgaa gatgttgacc actctgccat ggttaaccca 1020
ggtgacaacg ttgagatgga aatcgagttg ggtagaaagg ccccacttga gtt 1073

<210> 1567
<211> 1062
<212> DNA
<213> Candida kefyr ATCC 28838

<400> 1567
catggtaaga ccactttgac tgctgccatc accaagactc tagctgaacg tggtggtgct 60
gacttttttgg actactcttc tattgacaag gctccagaag aaagagcyag aggtatcact 120
atttctactg ctcatgttga atacgagact gaaaagagac attactccca cgttgactgt 180
ccaggtcacg ctgattacat caagaacatg attactggtg ctgctcaaat ggacggtgct 240
attattgttg ttgctgctac tgatggtcaa atgcctcaaa ccagagagca tttgttgttg 300
gccagacaag ttggtgtcca acacattgtt gttttcgtta acaaggttga caccatcgat 360
gatccagaaa tgttggaatt ggttgaaatg gaaatgagag aattrttgac tcaatatggc 420
tttgacggtg acaacactcc agtgatcatg ggttctgctt tgtgtgcctt ggaaggtaag 480
caaccagaaa ttggtgagca agccatcatg aagttgttgg acgctgttga cgaatacatc 540
ccaaccccag cccgtgactt ggaaaavcca ttcttgatgc ctgttgaaga tatcttctcc 600
atttccggta gaggtactgt cgtcactggt agagttgaac gtggtaactt gaagaagggt 660

gaagaaatcg aaattgttgg tcacaacacc actcctttca agactactgt tactggtatt 720
gaaatgttca gaaaggaatt ggaccaagcc atggctggtg acaacgctgg tgtccttttg 780
agaggtgtca gaagagacca attgaagaga ggtatggttt tggctaagcc aggtactgtt 840
aaggcccaca ccaagttctt ggcttccttg tacattttga ccaaggaaga aggtggtaga 900
cactccggtt tcggtgaaaa ctacagacca caaatctacg tcagaactgc tgacgttacc 960
gtdgtcttga agttcccaga atctgttgaa gaccattcca tgcaagtcat gccaggtgac 1020
aatgtcgaaa tggagtgtga attggttcac ccaactccat tg 1062

<210> 1568
<211> 1062
<212> DNA
<213> Candida lusitaniae ATCC 66035

<400> 1568
cggaaagacc accttgaccg ccgccattac caaggttttg gctgacaagg gtggcgccaa 60
cttcttggac tacggtgcca ttgacaaggc tcctgaagaa agagcacgtg gtatcaccat 120
ttccactgcc cacgttgaat acgagaccga caacagacac tacgcccacg ttgactgtcc 180
aggtcacgcc gattacatca agaacatgat cacgggtgcc gctcaaatgg acggtgccat 240
tattgttgtt gcagccaccg acggccaaat gcctcaaacc agagagcact tgttgttggc 300
cagacaagtt ggtgtgcaac acttggttgt tttcgtgaac aaggttgata ccatcgacga 360
cccagaaatg ttggaattgg ttgaaatgga aatgagagaa ttgttgactc aatacggatt 420
tgacggcgat gaaacccctg ttgttatggg ctctgctctt tgcgctttgg aaggtagaga 480
accagagatt ggtgagcaag ccatcaccaa gttgttggag gctgttgacg agtacatccc 540
aaccccacaa cgtgacttgg aacaaccatt cttgatgcct gttgaagatg ttttctccat 600
ttctggtaga ggtactgttg tcactggtag agtggagaga ggttccttga agaagggtga 660
ggagatcgag attgttggtg actttgacaa gcctttcaag actactgtta ctggtattga 720
gatgttcaag aaggaattgg acgctgctat ggctggtgac aatgctggta tcttgttgag 780
aggtgtcaag agagaacaag tttcccgtgg tatggttttg gccaagccag gcactgtgac 840
ctcgcacaag aaggttttgg cttctttgta cattttgtct aaggaagaag gtggtcgtca 900
ctctccattt ggcgagaact acaagcctca attgttcctt agaactaccg atgtcactgg 960
tactttgaga ttcccagcag gtgaggacgt tgaccactcc gctatggttt ctccaggtga 1020
caatgtcgag atggaaatcg agttggtcag aaagactcct ct 1062

<210> 1569
<211> 990
<212> DNA
<213> Candida sphaerica ATCC 2504

<400> 1569
tcaccaagac tttggctgaa cgtggtggtg ctgatttctt ggactactct tccattgaca 60
aggctccaga agaaagagcr agaggtatca ctatttctac tgcacatgtt gaatatgaaa 120
ctgacaagag acattactct cacgtcgact gtccaggtca tgctgattac atcaagaata 180
tgattactgg tgctgcccaa atggatggtg ctatcattgt tgttgctgct acagatggtc 240
aaatgcctca aaccagagaa catttgttgt tggctagaca agttggtgtt caacayatcg 300
ttgttttcgt taacaaggtt gacactatcg atgaccctga aatgttagaa ttggttgaaa 360
tggaaatgag agaattattg acccaatacg gtttcgatgg tgacaacact ccagtcatca 420
tgggttctgc tttgtgtgct ttagaaggta agcaaccaga aattggtgaa caagcaatca 480
tgaagttatt ggacgctgtt gacgaataca tcccaactcc agctcgtgat ttggaaaagc 540
ctttcttgat gcctgttgaa gatatcttct ccatctccgg tagaggtacc gtcgtaactg 600
gtagagttga acgtggtaac ttgaakaagg gtraagaaat cgaaatcgtt ggtcacaaca 660
ccactccatt caagaccact gttactggta ttgaaatgtt cagaaaggaa ttggaccaag 720
ctatggctgg tgataacgct ggtgtcwtgt tgagaggtgt cagaagagac caattaaaga 780
gaggtatggt cttggccaag ccaggtactg tcaaggctca caccraattc ttggcctctt 840
tgtatatctt gaccaaggaa gaaggtggta gacattccgg tttcggtgaa aattacagac 900
ctcaaatcta cgttagaact gctgatgtca ccgttgtttt gaagttccca gaagctgttg 960
aagatcactc tatgcaagtc atgccaggtg 990

<210> 1570
<211> 1184
<212> DNA
<213> Candida tropicalis ATCC 750

<400> 1570

gatcatggta aaaccacttt gactgctgcc attactaaag tcttggctga taaaggtcaa 60
gctaacttct tagattacgg ttctattgat agagctccag aagaaagagc cagaggtatc 120
accatctcta ctgcccacgt tgaatatgaa accgaaaaaa gacattacgc ccatgttgag 180
tatgtatact ttttttttgtt gtgtaattgt tttaaagatt ttctttaaag ctgaagaagt 240
caaatcagtt ctttgataac ttctattaaa aaaagggaaa aattaacaag atatactaac 300
actataacag ttgtcctgga catcaagatt atatcaagaa tatgattacc ggtgccgctc 360
aaatggatgg tgctattatt gttgttgctg ccactgatgg tcaaatgcca caaaccagag 420
aacatttgtt gttggctaga caagtcggtg ttcaagattt ggttgtcttt gttaacaaag 480
tcgacactat tgatgaccca gaaatgttgg aattggttga aatggaaatg agagaattat 540
tgactactta cggttttgat ggtgataaca ctcctgttat catgggttct gctttgatgg 600
ccttgcaagg taaacaacca gaaattggtg aacaagctat catgaaattg atggacgcta 660
ttgatgaaca cattccaacc ccaaccagag acttggaaca atctttcttg atgccagttg 720
aagatgtttt ctccatttct ggtagaggta ctgttgttac tggtagagtc gaaagaggtg 780
tcttaaagaa gggtgaagaa attgaaattg ttggtggttt cgaaaaacca ttcaagacca 840
ctgttactgg tattgaaatg ttcaagaaag aattagatgc tgctatggct ggtgacaact 900
gtggtgtctt gttgagaggt gtcaagagag acgaaatcaa gagaggtatg gttttggcta 960
aaccaggtac tgctacttcc cacaagaaat tcttggcttc catgtatatc ttaactgctg 1020
aagaaggtgg tcgttccact ccattcggtg aaggttacaa gccacaatgt ttcttcagaa 1080
ctaacgatgt taccacttcc ttctctttcc cagaaggtga aggtgttgac cactcccaaa 1140
tggttatgcc aggtgacaac attgaaatgg tcggtgaatt gatt 1184

<210> 1571
<211> 1071
<212> DNA
<213> Candida viswanathii ATCC 28269

<400> 1571
cgatcacggt aagaccacct tgaccgccgc catcaccaag gtcttggccg acaagggtca 60
ggctaacttc ttggactacg gatccattga cagagcccct gaagaaagag caagaggtat 120
cactatctcc actgcccacg ttgaatacga gactgataag agacactatg cccacgttga 180
ttgcccgggc catcaagatt atatcaagaa tatgatcact ggtgctgccc aaatggacgg 240
tgctatcatt gttgttgctg ctactgacgg tcagatgcca caaaccagag aacacttgtt 300
gttggctaga caagttggtg tccaagactt ggttgttttc gttaacaagg ttgacactat 360
cgatgaccca gaaatgttgg aattggttga aatggaaatg agagaattat tatcttctta 420
yggctttgac ggtgacaaca ccccagttgt catgggttcc gctttgatgg ctttgcaagg 480
taagcaacca gaaattggtg aacaagctat tattaagttg atggacgcta ttgatgaaca 540
catyccaacc ccaaccagag acttggaaca accattcttg ttgccagttg aagatgtctt 600
ttctatttcc ggtagaggta ccgtcgtcac tggtagagtc gaaagaggtg tcttgaagaa 660
gggtgaagaa attgaaattg tcggtaactt tgaaaagcca ttcaagacca ccgttactgg 720
tattgaaatg ttcaagaagg aattggatgc tgctatggct ggtgacaact gtggtgtctt 780
gttgagaggt gtcaagagag acgaaatcag cagaggtatg gttttggcca agccaggtac 840
cgtcacttcc cacaagaagt tcttggcctc catgtacatc ttgactggtg aagaaggtgg 900
tcgtcgtacc ccattcggtg aaggttacaa gccacaatgt ttcttcagaa ccaatgacat 960
caccaccact ttcactttcc cagaaggtga aggtgtcgac cactcccaaa tggttatgcc 1020
aggtgacaac atcgaaatgg ttggtgaatt gtacaaggct tgtccttgga a 1071

<210> 1572
<211> 817
<212> DNA
<213> Alcaligenes faecalis subsp. faecalis ATCC 8750

<400> 1572
tatcttggtt wgctcggccg ctgacggccc aatgcctcag actcgcgagc acatcctgct 60
gagccgtcag gttggcgttc cttacatcat cgtgttcctg aacaaggccg acatggttga 120
tgacgaagag ctgatcgaac tggttgaaat ggaagttcgc gagctgttgt ccaagtacga 180
cttccctggc gacgacaccc cgatcatcaa gggttcggcc aaactggctc tggaaggcga 240
cgaaggccca ctgggcagcc aagccgttct ggctctggcc gaagcgctgg acaactacat 300
tcctacgcct gagcgtgccg ttgacggtac gttcctgatg cctgttgaag acgtgttctc 360
gatctccggc cgtggtacgg ttgtgaccgg tcgtattgag cgcggcatca tcaaggtcgg 420
cgaagaaatc gaaatcgtgg gtatcaaaga cacggtcaag accatttgta ccggcgttga 480
aatgttccgc aaactgctgg accagggcga agctggcgat aacgtcggtc tgctgctgcg 540
tggtaccaag cgtgaagacg tggaacgtgg tcaagttctg gccaagccag gctcgatcaa 600
gccacacact gacttcgacg ccgaggtgta cattctgtcc aaagaagaag gtggtcgtca 660
cactcctttc ttcaagggct accgtcctca gttctacttc cgtacaactg acgtgaccgg 720

caccatcgag ctgccagaag acaaggaaat ggttctgcca ggcgacaaca tttcgatgaa 780
agtgtccctg atcgctccta tcgccatgga agaaggt 817

<210> 1573
<211> 796
<212> DNA
<213> Prevotella buccalis ATCC 35310

<400> 1573
tatccttgta gttgctgcta ctgatggtcc tatgccacag acacgtgagc acgtgctttt 60
ggctcgtcag gtaaacgttc ctcgtttggt tgtgttcatg aacaagtgtg acttggtaga 120
agacgaagag atgcttgaac tcgttgaaat ggagttgcgc gaacttcttg agcaatacga 180
attcgaagag gatactccaa tcgttcgtgg ttctgcactg ggtgcattga atggtgttga 240
caagtgggtt gacagcgtga tgacgttgat ggacactgtt gacgagtgga ttcaagagcc 300
agagcgtgac cttgacaaac ctttcttgat gccagtagag gacgtgttct ctatcacagg 360
tcgtggtacc gttgtaacag gacgtattga gactggtaag gtaaaggttg gcgacgagat 420
tcagttgctc ggtcttggtg aggacaagaa gtctgttgta acaggcgttg aaatgttccg 480
taagattctt tctgaaggtg aagcaggtga taacgtagga cttttgctcc gcggtatcga 540
taaggatgaa gtaaagcgtg gtatggttgt tgtacaccca ggtgccatca ctcctcacga 600
tcacttcaag gcttccatct atgtattgaa gaaggaagag ggtggacgtc atactccatt 660
cggaaacaag tatcgtcctc agttctatct ccgtacaatg gactgtacag gtgagatcac 720
tttgccagaa ggcgtagaga tggtgatgcc tggtgacaac gtagagattg aggttacctt 780
gatttacaag gttgcc 796

<210> 1574
<211> 820
<212> DNA
<213> Succinivibrio dextrinosolvens ATCC 19716

<400> 1574
gctattctag tagtagcagc aactgatggt cctatgccac agacccgtga gcacatccta 60
ttagcacgtc aggtaggcgt accatacatc atcgtattcc taaacaagtg cgatatggtt 120
gacgacgagg aattattaga gttagttgag atggacgtac gtgatctatt aaatcagtac 180
cagttcccag gcgacgacac tccaatcatc cgtggttcag cactaggtgc attaaacggc 240
gaagagaagt ggaaagaggc aatctatcag ttagcagaca ctctagattc atacattcca 300
gagccaaagc gtgatatcga tgatccattc ctattaccaa tcgaagatat cttctcaatc 360
tcaggtcgtg gtactgtagt aaccggccgt gtagagcgtg gtattgtaca cgtaggtgac 420
gaagttgaaa tcgttggtat tcgtccaacc accaagacca ctgtaactgg cgttgaaatg 480
ttccgtaagt tactagacga aggtcgtgca ggtgataacg ttggtgttct actacgtggt 540
accaagcgtg atgaggttga gcgtggtcag gttctagctg ctccaggcac aatcactcca 600
cacaccaagt tcactggtca ggtttacgta ctaagcaagg atgaaggtgg tcgtcacact 660
ccattcttca agggctaccg tccacagttc ttcttccgta caaccgatat taccggttct 720
atcgatctga aagagggcgt agagatggta atgccaggtg ataacaccga catgaccgta 780
accctaatcc acccagtagc tatggctgaa ggcgagagat 820

<210> 1575
<211> 803
<212> DNA
<213> Tetragenococcus halophilus ATCC 33315

<400> 1575
ggtagtgtct gcagctgacg gcccaatgcc acaaactcgt gaacatatcc tattgtcacg 60
taacgttggt gtaccataca tcgttgtatt cttaaacaaa atggatatgg ttgacgatga 120
agaattactt gaattagttg aaatggaagt acgtgatcta ttaactgaat acgacttccc 180
aggtgatgat actcctgtta tttctggttc agctttgaaa gctttagaag gcgacgaaga 240
atatgaacaa aaagtcttag acttaatggc agctgtagat gatttcatcc caactcctga 300
acgtgaccat gacaaaccgt tcatgatgcc gattgaagat gttttctcaa tcactggtcg 360
tggaactgtt gctacaggtc gtgttgaacg tggaactatt aaagtcggtg atgaagttga 420
tatcatcggt attcatgaaa atgttaaaaa gacaactgtt acgggtgtag aaatgttccg 480
taaattgttg gattacgctg aagctggcga taacatcggt acattattgc gtggtgtttc 540
tcgtgatgat atcgaacgtg gtcaagtgtt ggctaaacca ggcacaatca caccacatac 600
aaaattctca gctgaagttt atgtattaac aaaagaagaa ggcggacgtc atactccatt 660
cttctcaaac tatcgcccac aattttactt ccgtacaact gacatcactg gtgtcattga 720

attgccagaa ggtactgaaa tggttatgcc aggtgataac gtagcaatgg aagttgaatt 780
aattcaccct gttgctattg aaa 803

<210> 1576
<211> 805
<212> DNA
<213> Campylobacter jejuni subsp. jejuni ATCC 33292

<400> 1576
ttaatgaagc aattgttgta aattttgaaa gcgaaggaaa aaaacataaa cttgttttag 60
aagtagcagc tcatttagga gataatagag ttagaactat tgctatggat atgacagatg 120
gtttggtaag gggcttaaaa gctgaggctt taggtgctcc tattagtgtt cctgttggtg 180
agaaagtttt aggaagaatt ttcaatgtta ctggagattt gatcgatgaa ggtgaagaaa 240
tttcttttga taaaaaatgg gcaattcata gagatccgcc agcttttgaa gatcaaagca 300
caaaaagtga gatttttgaa acagggatta aagttgtaga tttgcttgct ccttatgcaa 360
aaggtggtaa agtaggtctt tttggtggtg caggtgttgg taaaactgtt attattatgg 420
agcttattca caatgttgca tttaagcata gcggctattc tgtatttgca ggtgtgggtg 480
agagaactcg tgaaggaaat gacctttata atgaaatgaa agaaagtaat gttttagaca 540
aagttgctct atgttatgga caaatgaatg aaccaccagg agcaagaaat cgtattgctt 600
taacaggttt aacaatggct gagtatttta gagatgaaat gggtcttgat gtgcttatgt 660
ttattgataa tatctttaga ttttcacaat caggttctga aatgtcagca cttttaggaa 720
gaattccatc agctgtgggt tatcaaccaa ccctagcaag tgaaatgggt aaattccaag 780
aaagaattac ttcaactaaa aaagg 805

<210> 1577
<211> 809
<212> DNA
<213> Campylobacter rectus ATCC 33238

<400> 1577
atttacccaa gatcaacgaa gccgtcgaag taaatttcga ggttgagggc aagcaaaaca 60
gacttgtgtt agaggttgcc gcacaccttg gcgataaccg cgtaagaacg atcgctatgg 120
atatgagcga aggcttaacc agaggccttg aggctacggc tcttggcgcg cctattagcg 180
ttccggtcgg cgaaaaagtt ttgggaagga tttttaacgt cgtcggcgat ctgatcgacg 240
agggtgaagg catagaattt gataaaaaat ggtctatcca ccgcgatcct ccgccgtttg 300
aagagcaaag cacgaagagt gaaatttttg aaacgggtat aaaagtggtc gatcttctag 360
ccccttatgc aaaaggcggt aaggtcggat tattcggcgg tgccggcgtc ggtaagacgg 420
ttattatcat ggagcttatc cacaacgttg catttaagca tagcggttat tccgtgtttg 480
ccggcgtggg cgagcgaacc cgcgaaggaa acgaccttta tcacgagatg aaagagagta 540
acgttttgga caaagtcgcc ttgtgctacg gccagatgaa cgagccgccg ggagcaagaa 600
accgcatcgc tctaacaggc ctaacgatgg ctgaatactt ccgcgacgag atgggacttg 660
acgttttgat gtttatagac aacatcttcc gtttctctca gtctggcgct gagatgtcgg 720
cgcttcttgg acgtatcccg tcagccgttg gttatcagcc gactttggcg agcgaaatgg 780
gcaaattcca agagagaatt acatcaacc 809

<210> 1578
<211> 1671
<212> DNA
<213> Enterococcus casseliflavus ATCC 25788

<400> 1578
aatcgaagtg caacgttcat tgcgtgtact tgatggtgct gtaactgtgt tggactcaca 60
atcaggtgta gaacctcaaa cagaaacagt ttggcgtcaa gcgacagatt accgcgtacc 120
gcgtgttgta ttctgtaaca aaatggacaa aattggtgca gacttcttat actctgtatc 180
aactttacat gatcgtttac aagcaaatgc tcacccaatc caattaccaa ttggtgcgga 240
agatgacttt actggtatta tcgacttagt aaaaatgaaa gctgaaatct acacaaatga 300
cttaggaact gaaatccaag agactgaaat tcctgaagaa tacgtagaat tagctgaaga 360
atggcgcgaa aaattaattg aagctgttgc tgatactgat gaagaactaa tgatgaaatt 420
cttggaaggt gaagaaatca ctgaagaaga attgaaagct ggtattcgtc aagcaacatt 480
gactgttgac tttttccctg ttctttgcgg atctgccttt aaaaacaaag gggttcaatt 540
gatgttggat gcagtcatcg actacttgcc ttcaccactt gatgttcctg cgattaaagg 600
gatcaatcct aaaacagacg aagaaactga tcgtccggct gacgatgaag caccatttgc 660
ttcattagca tttaaagtaa tgactgaccc attcgtargt cgtttgacat tcttycgtgt 720

gtattcargt atcttgaact ctggatcata cgtattgaat gcttcaaaag gcaaacgcga 780
acgtatcggt cggatcctac aaatgcacgc caacactcgt gctgaaatcc aaacagtata 840
ctcaggcgat atcgccgctg ctgttggttt gaaagacaca acaactgggg atccactatg 900
tgatgaaaaa tccccagtaa tccttgaatc aatcgaattc ccagaaccag ttatcgaagt 960
cgctgttgag cttaaatcaa aagctgacca agataaaatg ggggttgctt tacaaaaact 1020
tgctgaagaa gatccatcat tccgtgtgga amcaaacgct gaaacaggcg aaactgttat 1080
cgctggtatg ggagaacttc acttggacgt cttagttgac cgtatgcgtc gcgaatttaa 1140
agttgaagca aacgtaggtg cgcctcaagt ttcttatcgt gaaacattcc gtgcagcaac 1200
acaagcggaa ggtaaatttg tacgtcagtc tggtggtaaa ggtcaatacg gtcacgtatg 1260
ggtcgaattt acaccaaacg aagaaggtaa aggcttcgaa ttcgaaaacg cgattgtcgg 1320
tggtgtggtt cctcgtgaat acatcccagc agttgaaaaa ggacttgaag aatcaatggc 1380
gaacggtgtc ttagccggtt acccattagt agacatcaaa gcaaaacttt atgatggttc 1440
ataccatgat gtcgattcaa gtgaaactgc cttccgtgtt gcagcttcta tggctttacg 1500
tgctgcagcg aagaaagcaa acccagtaat tcttgaacca atgatgaaag tagttatcac 1560
tgtaccagaa gattacttag gtgatgttat gggtcacgta actgctcgtc gtggacgcgt 1620
agaaggaatg gaagcacwcg gtaactcaca aatcgtgaac gcaatcgtgc c 1671

<210> 1579
<211> 1662
<212> DNA
<213> Enterococcus gallinarum ATCC 49573

<400> 1579
gaagtacaac gttcactacg ggttcttgac ggwgctgtaa cagtattgga ctcacaatct 60
ggtgtagaac cacaaactga aacagtttgg cgtcaagcga cagattaccg cgtaccacgt 120
atcgtattct gtaacaaaat ggataaaatc ggtgcagact tcttatactc tgtatctact 180
ttacatgatc gcttgcaagc aaatgctcat ccaatccaat taccaattgg tgcggaagat 240
gactttactg gtatcatcga tctagtaaaa atgaaagctg agatctatac aaacgattta 300
ggaacagaga ttcaagaaac tgaaattcct gaagagtaca aagaattagc tgaagaatgg 360
cgcgaaaaat tagttgaagc tgttgcagat actgacgaag agctaatgat gaaattcttg 420
gaaggtgaag aaatcactga agaagaattg aaagctggta tccgtcaagc gacattgact 480
gttgaatttt tcccagttct ttgtggttca gccttcaaaa acaaaggggt tcaattgatg 540
ttggatgcag tcatcgacta ccttccttca ccacttgatg ttcctgcaat caaagggatc 600
aatcctaaaa ctgacgaaga aactgatcgt cctgctgacg atgaagcgcc ttttgcttca 660
ctagcattta aagtaatgac tgacccattc gtaggtcgtt tgacattctt ccgtgtgtat 720
tcaggtgtct tgaactctgg atcatatgtc ttgaatgctt caaaagacaa acgcgaacgt 780
atcggtcgta ttctgcaaat gcacgcgaac acttgtgcag aaatccaaac agtttattca 840
ggcgatatcg ctgcagctgt tggtttgaaa gattccacaa caggggatac attgtgtgcg 900
aaaaatcacc cagtaatcct tgaatcaatc gaattcccag amccagttat cgaagtagct 960
gttgaacyta aatcaaaagc tgaccaagat aaaatgggtg tggctttaca aaaacttgct 1020
gaagaagatc cttcattccg tgtagaamca aacgctgaaa ctggcgaaac tgttatcgca 1080
gggatgggtg aacttcactt ggacgtcctt gttgaccgta tgcgtcgcga atttaaagtt 1140
gaagcaaacg ttggtgcgcc tcaagtttct taccgcgaaa cattccgtgc ttctacgcaa 1200
gccgaaggta aatttgtacg tcagtctggt ggtaaaggtc aatacggtca cgtatggatc 1260
gaatttacac caaacgaaga aggtaaaggc ttcgaattcg aaaacgcaat tgtcggtggt 1320
gtggttccac gtgaatacat cccagcagtt gaaaaaggac ttgaagactc aatggctaac 1380
ggtgttctag ctggttatcc attggttgac atcaaagcca agctttacga tggttcatac 1440
catgatgtcg attcaagtga aacagccttc cgtgtggcag cttcaatggc tttacgtgct 1500
gcagcgaaga aagctaatcc agtgattctt gaaccaatga tgaaagttgt tatcactgtt 1560
cctgaagatt acttaggtga tattatggga cacgtaactg ctcgtcgtgg acgtgttgaa 1620
ggtatggaag cgcatggtaa ctcacaaatc gttaacgcga tt 1662

<210> 1580
<211> 1669
<212> DNA
<213> Streptococcus mitis ATCC 49456

<400> 1580
caatcgaagt acaacgttct cttcgtgtat tggatggtgc tgttaccgtt cttgactcac 60
aatcaggtgt tgagcctcaa actgaaacag tttggcgtca agcaactgag tatggagttc 120
cacgtatcgt atttgccaac aaaatggaca aaatcggtgc tgacttcctt tactctgtaa 180
gcacacttca cgatcgtctt caagcaaatg cacacccaat ccaattgcca atcggttctg 240
aagatgactt ccgtggtatc atcgacttga tcaagatgaa agctgaaatc tatactaacg 300
accttggtac agatatcctt gaagaagaca tcccagctga ataccttgac caagctcaag 360

aataccgtga aaaattgatc gaagcagttg ctgaaactga cgaagaattg atgatgaaat 420
acctcgaagg tgaagaaatc actaacgaag aattgaaagc tggtatccgt aaagcgacta 480
tcaacgttga attcttccca gtattgtgtg gctctgcctt caagaacaaa ggtgttcaat 540
tgatgcttga tgcggttatt gactaccttc caagcccact tgacatccca gcgatcaaag 600
gtatcaaccc agatwcagat gaagaagaaa ctcgtccagc atctgatgaa gagccatttg 660
cagctcttgc cttcaagatc atgacagacc cattcgtaag tcgtttgaca ttcttccgtg 720
tttactcarg tgktcttcaa tcaggttcat acgtattgaa cacttctaaa ggkaaacgtg 780
agcgtatcgg acgtatcctt caaatgcacg ccaacagccg tcaagaaatt gacactggtt 840
actcaagaga tatcgctgct gccgttggtt tgaaagatac tccaactggt gactcattgc 900
cagatgaaaa agctaaaatc attcttgagt caatcaacgt tccagamcca gttatccaat 960
tgatggttga gccaaaatct aaagctgacc aagccaagat gggtatcgcc cttcaaaaat 1020
tggctgaaga agatccaaca ttccgcgttg aamcaaacgt tgaaactggt gaamcagtta 1080
tctctggtat gggtgagctt caccttgacg tccttgttga ccgtatgcgt cgtgagttca 1140
aagttgaagc aaacgtaggt gctcctcaag tatcttaccg tgaaacattc cgcgcttcta 1200
ctcaagcacg tggattcttc aaacgtcagt ctggtggtaa aggtcaattc ggtgatgtat 1260
ggattgaatt tactccaaac gaagaaggta aaggattcga attcgaaaac gcaatcgtcg 1320
gtggtgtggt tcctcgtgaa tttatcccag cggttgaaaa aggtttggta gaatctatgg 1380
ctaacggtgt acttgcaggt tacccaatgg ttgacgttaa agctaagctt tacgatggtt 1440
cataccacga tgtcgactca tctgaaactg ccttcaagat tgcggcttca cttgctctta 1500
aagaagctgc taaatcagca caaccagcta tccttgagcc aatgatgctt gtaacaatca 1560
ctgttccaga agaaaacctt ggtgatgtta tgggtcacgt aactgctcgt cgtggacgtg 1620
tagatggtat ggaagcacwc ggtaacagcc aaatcgttcg tgcttacgt 1669

<210> 1581
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1581
aattggggac tacacctatt atgatg 26

<210> 1582
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1582
ggcaaatcag tcagttcagg agt 23

<210> 1583
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1583
cgattggcaa caatacactc ctg 23

<210> 1584
<211> 26
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1584
tcacctattt ttacgcctgg taggac 26

<210> 1585
<211> 645
<212> DNA
<213> Enterococcus faecium

<400> 1585
atgactatac ctgacgcaaa tgcaatctat cctaactcag ccatcaaaga ggttgtcttt 60
atcaagaacg tgatcaaaag tcccaatatt gaaattgggg actacaccta ttatgatgac 120
ccagtaaatc ccaccgattt tgagaaacac gttacccatc actatgaatt tctaggcgac 180
aaattaatca tcggtaaatt ttgttctatc gccagtggca ttgaatttat catgaacggt 240
gccaaccacg taatgaaagg tatttcgact tatccattta atattttagg tggcgattgg 300
caacaataca ctcctgaact gactgatttg ccgttgaaag gtgatactgt agtcggaaat 360
gacgtgtggt ttgggcaaaa tgtgaccgtc ctaccaggcg taaaaatagg tgacggtgcc 420
attatcggag caaatagtgt tgtaacaaaa gacgtcgctc catatacaat tgtcggtggc 480
aatccaattc aactcatcgg accaagattt gaaccggaag ttattcaagc attagaaaat 540
ctggcatggt ggaataaaga tattgaatgg ataactgcta atgttcctaa actaatgcaa 600
acaacaccca cacttgaatt gataaacagt ttaatggaaa aataa 645

<210> 1586
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1586
attcccacaa tctttttttat caataa 26

<210> 1587
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1587
cattgttcag attcggtaaa gttc 24

<210> 1588
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1588
gtttttgaag ttaaatagtg ttctt 25

<210> 1589
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1589
cttccatttg tactttccct a 21

<210> 1590
<211> 1920
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Cloning vector
pFW16

<400> 1590
atgaaaatta ttaatattgg agttttagct catgttgatg caggaaaaac taccttaaca 60
gaaagcttat tatataacag tggagcgatt acagaattag gaagcgtgga caaaggtaca 120
acgaggacgg ataatacgct tttagaacgt cagagaggaa ttacaattca gacaggaata 180
acctcttttc agtgggaaaa tacgaaggtg aacatcatag acacgccagg acatatggat 240
ttcttagcag aagtatatcg ttcattatca gttttagatg gggcaattct actgatttct 300
gcaaaagatg gcgtacaagc acaaactcgt atattatttc atgcacttag gaaaatgggg 360
attcccacaa tctttttttat caataagatt gaccaaaatg gaattgattt atcaacggtt 420
tatcaggata ttaaagagaa actttctgcc gaaattgtaa tcaaacagaa ggtagaactg 480
tatcctaatg tgtgtgtgac gaactttacc gaatctgaac aatgggatac ggtaatagag 540
ggaaacgatg acctttttaga gaaatatatg tccggtaaat cattagaagc attggaactc 600
gaacaagagg aaagcataag atttcagaat tgttctctgt tccctcttta tcatggaagt 660
gcaaaaagta atatagggat tgataacctt atagaagtta ttactaataa attttattca 720
tcaacacatc gaggtccgtc tgaactttgc ggaaatgttt tcaaaattga atatacaaaa 780
aaaagacaac gtcttgcata tatacgcctt tatagtggag tactacattt acgagattcg 840
gttagagtat cagaaaagga aaaaataaaa gttacagaaa tgtatacttc aataaatggt 900
gaattatgta agattgatag agcttattct ggagaaattg ttattttgca aaatgagttt 960
ttgaagttaa atagtgttct tggagataca aaactattgc cacagagaaa aaagattgaa 1020
aatccgcacc ctctactaca aacaactgtt gaaccgagta aacctgaaca gagagaaatg 1080
ttgcttgatg ccctttgga aatctcagat agtgatccgc ttctacgata ttacgtggat 1140
tctacgacac atgaaattat actttctttc ttagggaaag tacaaatgga agtgattagt 1200
gcactgttgc aagaaaagta tcatgtggag atagaaataa cagagcctac agtcatttat 1260
atggagagac cgttaaaaaa tgcagaatat accattcaca tcgaagtgcc gccaaatcct 1320
ttctgggctt ccattggtct atctgtatca ccgcttccgt tgggaagtgg aatgcagtat 1380
gagagctcgg tttctcttgg atacttaaat caatcatttc aaaatgcagt tatggaaggg 1440
atacgctatg gttgtgaaca aggattgtat ggttggaatg tgacggactg taaaatctgt 1500
tttaagtatg gcttatacta tagccctgtt agtaccccag cagattttcg gatgcttgct 1560
cctattgtat tggaacaagt cttaaaaaaa gctggaacag aattgttaga gccatatctt 1620
agttttaaaa tttatgcgcc acaggaatat ctttcacgag catacaacga tgctcctaaa 1680
tattgtgcga acatcgtaga cactcaattg aaaaataatg aggtcattct tagtggagaa 1740
atccctgctc ggtgtattca agaatatcgt agtgatttaa ctttctttac aaatggacgt 1800
agtgtttgtt taacagagtt aaaagggtac catgttacta ccggtgaacc tgtttgccag 1860
ccccgtcgtc caaatagtcg gatagataaa gtacgatata tgttcaataa aataacttag 1920

<210> 1591
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1591
atgaggtaat agaacggatt 20

<210> 1592
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1592
cagtatttca gtaagcgtaa a 21

<210> 1593
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (29)..(29)
<223> n represents a modified base

<220>
<221> modified_base
<222> (29)..(29)
<223> i

<400> 1593
ccgagcgatt taccggatac ttggctgcnc gctcgg 36

<210> 1594
<211> 1032
<212> DNA
<213> Enterococcus faecium strain N97-330

<400> 1594
atgtttagaa ttaaagttgc agttctgttt gggggctgtt cagaggaaca taatgtttcg 60
ataaaatctg cgatggagat tgccgcaaac atagatacaa aaaagtatca gccttattat 120
attggaatca caaaatccgg cgtttggaaa atgtgtgaaa aaccttgttt ggagtgggaa 180
caatatgcgg gggatccggt tgtttttttca ccggacagaa gtacgcatgg tctgctgata 240
caaaaagaca ctgggtatga aatccagcct gtggatgtgg gattaccgat gattcatggc 300
aagtttggcg aggatggctc catacaaggc ttgcttgaat tgtcaggcat tccgtatgtg 360
ggatgcgata ttcaaagctc cgtgacctgc atggataagg cgcttgcata taccgttgtg 420
aaaaatgcgg gtatcgctgt gcctgggttc cggatccttc aggaggggga tcgcctggaa 480
acagaggatt tcgtatatcc cgtttttgta aagcctgccc gttccggctc atcctttggc 540
gtaaacaagg tatgcaaggc agaagaactg caggcagcaa tcgaagatgc aagaaaatat 600
gacagcaaga ttttgattga agaggccgtt accgggagtg aggtaggctg cgccatactg 660
ggaaacggaa atgatctcat ggctggcgag gtggatcaga ttgagctgag acacggcttt 720
tttaagattc atcaggaagc acagccggag aaaggatctg aaaatgcagt catccgagtt 780
ccagccgcct taccggatga ggtaatagaa cggattcaga aaacagcaat gaagatttac 840
cggatacttg gctgcagagg attggcccgc attgacctgt ttttgcggga ggacggctgc 900
attgtgttga atgaagtgaa taccatgccg ggttttactt cctacagccg ttatccccgc 960
atgatgacag cagccggttt tacgcttact gaaatactgg atcgcttgat tgaactttca 1020
cttaggaggt aa 1032

<210> 1595
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1595
aaataatgct ccatcaattt gctga 25

<210> 1596
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1596
atagtcgaaa aagccatcca caag 24

<210> 1597
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1597
gatgaatttg cgaaaataca tgga 24

<210> 1598
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1598
cagccaattt ctacccctttc cac 23

<210> 1599
<211> 604
<212> DNA
<213> Enterococcus faecalis strain BM4405

<400> 1599
cagggagtat ttgagttatt agatattcca tatgtaggtt gtggtatcgg agctgcagca 60
atttccatga ataaaataat gctccatcaa tttgctgaaa tagttggtgt aaaaagcact 120
cctagtatga ttatagaaaa gggacaagac ctacaaaaag tcgatgaatt tgcgaaaata 180
catggatttc ctttatatat caaaccgaat gaggcaggct catcaaaagg aattagcaag 240
gtagaacaaa aaagtgattt atataaagca atagacgaag cttcaaaata tgatagccgt 300
attttaattc aaaaggaagt gaaaggggta gaaattggct gtgggatttt agggaatgaa 360
caattggtcg ttggagaatg tgatcaaatt agtcttgtgg atggcttttt cgactatgaa 420
gagaaataca atttagtaac agcagaaatt ttgttaccag ctaaactatc aatagacaaa 480

aaagaagaca tccagataaa agcaaaaaaa ctatacagac tattagggtg caaaggatta 540
gcgagaatcg actttttctt aacggatgac ggagaaattt tattaaatga gatcaacacc 600
ctcc 604

<210> 1600
<211> 805
<212> DNA
<213> Campylobacter jejuni subsp. doylei ATCC 49349

<400> 1600
acctcaaatt aatgaagcaa ttgttgtaaa ttttgaaagc gaaggaaaaa aacataaact 60
tgttttagaa gtagcagctc atttaggaga taatagagtt agaactattg ctatggatat 120
gacagatggt ttggtaaggg gcttaaaagc tgaggcttta ggtgctccta ttagtgttcc 180
tgttggtgag aaagttttag gaagaatttt caatgttact ggagatttga tcgatgaagg 240
tgaagaaatt ccttttgata aaaaatgggc aattcataga gatccgccag cttttgaaga 300
tcaaagcaca aaaagtgaga tttttgaaac agggattaaa gttgtagatt tacttgctcc 360
ttatgcaaaa ggtggtaaag taggtctttt tggtggtgca ggtgttggta aaactgttat 420
tattatggag cttattcaca atgttgcatt taagcatagc ggctattctg tatttgcagg 480
tgtgggtgag agaactcgtg aaggaaatga cctttataat gaaatgaaag aaagtaatgt 540
tttagacaaa gttgctctat gttatggaca aatgaatgaa ccaccaggag caagaaatcg 600
tattgcttta acaggtttaa caatggctga gtattttaga gatgaaatgg gtcttgatgt 660
gcttatgttt attgataata tctttagatt ttcacaatca ggttctgaaa tgtcagcact 720
tttaggaaga attccatcag ctgtgggtta tcaaccaacc ctagcaagtg aaatgggtaa 780
attccaagaa agaattactt caact 805

<210> 1601
<211> 826
<212> DNA
<213> Enterococcus sulfureus ATCC 49903

<400> 1601
ctccttacca gatatcaaca atgcgctggt tgtatataaa aatgatgcca ataaaacaaa 60
agttgtttta gaagcagcgt tagaattagg tgacggaatc attcgtgcga ttgcaatgga 120
atcgactgat ggattgcaac gtgggatgga agttgtcgat atgggagaat ctatttctgt 180
accagttgga acagaaactt taggacgtgt gtttaatgta ttaggagata cgattgactt 240
agaagctcct tttcctaaag atgcaccgcg tagtggaatc cataaaaaag cccctaattt 300
tgatgaatta agtacaagca cagaaattct agaaacaggg atcaaagtca tcgatctatt 360
agccccttat ttaaaaggtg gtaaagttgg attgtttggg ggagccggtg taggaaaaac 420
ggtattgatt caagagttga ttcacaatat cgcacaagaa cacggtggga tttcggtctt 480
tactggtgtt ggtgagcgta cacgtgaagg aaacgatttg tattatgaaa tgaaagattc 540
aggagtcatt gaaaaaacag cgatggtgtt tggacaaatg aatgagccac ctggtgcacg 600
gatgcgtgta gccttgactg gattaacgat tgctgaatat ttccgtgatg ttgaaggaca 660
ggatgtactg ttgtttatcg acaatatctt ccgttttaca caagctggtt ctgaagtgtc 720
tgccttgtta ggtcgtatgc catcagctgt gggatatcaa ccaacattag ctaccgaaat 780
ggggcaattg caagagcgga tcacgtcaac gaaaaaagga tcgatc 826

<210> 1602
<211> 833
<212> DNA
<213> Enterococcus solitarius ATCC 49428

<400> 1602
tgatacttta ccagatatta ataatgcatt agtagtatat aaaaaggacg aggacaagac 60
acgcgttgtc ttagaagcca ccttggaact tggagatggc atgattcgtg caatctctat 120
gggatcgact gatggcttgc aacggggaat ggaagttgtg gacacacaag cacctatttc 180
tgttccagta ggaaatgaaa ccttaggacg tgtttttaat gtcttaggag aaacgattga 240
taaacaggca ccgtttcctg aagatgccaa aaaaagtggt attcataaaa aagcacccgc 300
ttttgatgaa ttaagtacca gttctgaaat attggaaacc gggattaaag taatcgattt 360
gctagctcct tatttacgag gtggtaaagt tggattattt ggcggtgctg gcgtgggtaa 420
aacggtatta attcaagaat taattcataa cgttgcccaa gaacatgggg gaatttctgt 480
ttttacgggt gtcggagagc gtactcgtga aggaaatgac ctatattatg aaatgcagga 540
ttcaggcgtt attgaaaaaa cggctatggt atttggacaa atgaacgaac cccctggtgc 600
acgtatgcgt gtagcgttaa ctggtttgac acttgctgag tacttccgtg atgtacaagg 660

tcaagacgta ttattattta tagataatat tttccgcttt actcaagcag gaacagaagt 720
atctgcttta ttaggacgga tgccgtctgc cgttggttac caaccaactc tagcaacgga 780
aatgggacag ttgcaagaac gaatcacatc gacagataaa ggatcaatta cct 833

<210> 1603
<211> 806
<212> DNA
<213> Campylobacter sputorum subsp. sputorum ATCC 35980

<400> 1603
atcagcctaa aattaacgaa gcaatagaag ttaattatga attagatggt aaaaaaataa 60
gacttattct tgaagtagct ggacatcttg gcgataatag agcaagaacc attgctatgg 120
atatgagtga tggtttacaa agaggattag aagttacggc tcttggtgct cctataacag 180
ttcctgttgg agataaagtt ttaggtagaa tgtttaatgt tgtaggtgac ttaatagatg 240
aaggtgaagt aacagatttt gataaaagat gggctatcca tagagatcct ccttcgtttg 300
aagatcaaag tacaaaaagt gaaatttttg aaacaggtat aaaagtagtt gatcttcttg 360
caccttatgc aaaaggtggt aaagttggct tatttggtgg tgctggcgtt ggaaaaacag 420
ttatcataat ggagcttata cataatgttg catttaaaca cagcggttat tcaatttttg 480
ccggtgttgg agagagaaca agagagggaa atgatcttta taatgagatg aaagagtctg 540
gtgttttgga taaagttgcc ttatgttatg gacaaatgaa tgaaccacca ggagcaagaa 600
accgtatagc attaacaggt cttacaatgg ctgaatattt ccgtgatgaa atggggcttg 660
atgtgttgat gtttatagat aatatttta gattttctca atcaggttct gaaatgtcag 720
cgctgcttgg tagaattcca tctgctgttg gttatcaacc aacattagca agtgagatgg 780
gaaaacttca agaaagaatt acttcc 806

<210> 1604
<211> 738
<212> DNA
<213> Enterococcus pseudoavium ATCC 49372

<400> 1604
ggtgttatcc gcacaatcgc tatggaatct acagatggat tgcaacgggg gatggaagtt 60
gtcgataccg gcaaaccaat ctctgttcct gtaggtaaag aaacattagg tcgtgtgttt 120
aacgtattag gtgaaacgat cgacaaagaa gcacctttc cagaagatgt agaaaagagc 180
ggtattcaca aaaaggcccc cgcttttgaa gaccttagca ccagtaatga gattttagaa 240
actgggatca aggttatcga cttattagcc ccttacttaa aaggtggtaa agttggacta 300
ttcggtggtg ccggtgttgg taaaaccgtc ttaattcaag aactgattca taatatcgcc 360
caagaacacg gtgggatttc tgtctttacc ggggttgggg aacggactcg tgaagggaac 420
gacctttatt atgaaatgaa agaatccggc gttattgaaa aaacagcgat ggtcttcgga 480
caaatgaatg agccaccagg tgcgcggatg cgcgttgcct tgactggttt gacattagct 540
gaatatttcc gtgatgaaga aggtcaagat gtgttgctat ttatcgataa cattttccgc 600
ttcacacaag ccggatcaga agtttcggcg ctattaggtc ggatgccatc tgccgttggt 660
tatcaaccaa ccttggcaac agaaatgggt caattacaag aacgaatcac ttcaacgaaa 720
aaaggctcaa ttacatcg 738

<210> 1605
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (12)..(12)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (18)..(18)
<223> n represents a modified base

<220>
<221> modified_base
<222> (12)..(12)
<223> i

<220>
<221> modified_base
<222> (18)..(18)
<223> i

<400> 1605
atyatygaar tntaygcncc 20

<210> 1606
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (9)..(9)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (12)..(12)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (15)..(15)
<223> n represents a modified base

<220>
<221> modified_base
<222> (9)..(9)
<223> i

<220>
<221> modified_base
<222> (12)..(12)
<223> i

<220>
<221> modified_base
<222> (15)..(15)
<223> i

<400> 1606
ccraacatna ynccnacttt ttc 23

<210> 1607
<211> 336
<212> DNA
<213> Klebsiella ornithinolytica ATCC 31898

<400> 1607
ctggattatg cgatgtcggt cattgttggc cgtgcgctgc cggatgtccg agatggcctg 60
aaaccggtac accgtcgcgt actttacgcc atgaacgtat tgggcaatga ctggaacaaa 120
gcctataaaa aatccgcccg tgtcgttggt gacgtaatcg gtaaatacca ccctcatggt 180

gataccgccg tttatgacac cattgtacgt atggcacagc cattctcctt gcgttatatg 240
ctggtcgatg gccagggtaa cttcggttct gtcgatggcg actccgccgc agcgatgcgt 300
tatacggaaa tccgtatgtc gaaaatcgcc cacgag 336

<210> 1608
<211> 341
<212> DNA
<213> Klebsiella oxytoca ATCC 13182

<400> 1608
ctatctggat tatgcgatgt cggtcattgt tggccgtgcg ctgccggatg tccgagatgg 60
cctgaagccg gtacaccgtc gcgtactata cgccatgaac gtattgggca atgactggaa 120
caaagcctat aaaaaatctg cccgtgtcgt gggtgacgtc atcggtaaat accaccctca 180
tggtgatact gccgtatacg acaccattgt acgtatggcg cagccattct ccctgcgtta 240
catgctggta gatggccagg gtaactttgg ttcggtcgac ggcgactccg ccgcagcgat 300
gcgttatacg gaaatccgta tgtcgaagat cgcccatgaa c 341

<210> 1609
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1609
gccctgatcc aaatagcata ta 22

<210> 1610
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1610
cctggcataa cagtaacatt ctg 23

<210> 1611
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1611
tgggaaaaag caactccatc tc 22

<210> 1612
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1612
acaactgaat tcgcagcaac aat 23

<210> 1613
<211> 639
<212> DNA
<213> Staphylococcus aureus

<400> 1613
atgaaatatg gccctgatcc aaatagcata tatccacatg aagaaataaa aagtgtttgt 60
tttattaaaa atacaattac caatccaaat attatagttg gagattatac ttactattcc 120
gatgttaacg gagctgaaaa atttgaagaa catgtgacac atcattatga atttaggggt 180
gataaacttg taattggcaa gttttgtgca atagctgaag gtatagaatt tattatgaat 240
ggagcaaacc atagaatgaa ttcaataaca acttatcctt ttaatataat gggaaatggt 300
tgggaaaaag caactccatc tcttgaagat ttaccattta agggagatac tgttgttgga 360
aatgatgtgt ggattggtca gaatgttact gttatgccag gaattcaaat aggagatgga 420
gcaattgttg ctgcgaattc agttgttaca aaagatgtac caccatatcg tattattggt 480
ggaaatccga gtagaattat aaagaaaagg tttgaagatg aattgataga ttatttattg 540
caaataaaat ggtgggattg gtcagcacaa aaaatatttt ctaatcttga aacactttgt 600
agctctgatt tagagaaaat aaaatctatt cgagattag 639

<210> 1614
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1614
ccaatccaga agaaatatac cc 22

<210> 1615
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1615
attagtttat ccccaatcaa ttca 24

<210> 1616
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1616
ataatgaatg gggctaatca tcgtat 26

<210> 1617
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1617
gccaacaact gaataaggat caac 24

<210> 1618
<211> 639
<212> DNA
<213> Staphylococcus cohnii

<400> 1618
atgaaatggc aaaatcagca aggccccaat ccagaagaaa tataccctat agaaggtaat 60
aaacatgttc aatttattaa accatctata acaaagccca atattttagt tggggaatat 120
tcatattacg atagtaaaga tggtgaatct tttgaaagcc aagttcttta tcactatgaa 180
ttgattgggg ataaactaat attagggaag ttttgttcta ttggacccgg aacgacattt 240
ataatgaatg gggctaatca tcgtatggat ggttcaacat ttccattcaa tcttttcgga 300
aatggttggg agaagcatac ccctacattg gaagaccttc cttataaggg taacacggaa 360
attgggaacg atgtttggat tggacgagat gtgacaatta tgcccggtgt aaaaatagga 420
aacggggcta ttattgcagc aaaatcggtt gtgacaaaga acgttgatcc ttattcagtt 480
gttggcggta atccttcacg attaattaag ataaggtttt ccaaggaaaa aatcgcagca 540
ttactaaaag taaggtggtg ggacctagag atagagacga taaatgaaaa tattgattgc 600
atcctgaatg gtgatataaa aaaggttaaa agaagttag 639

<210> 1619
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1619
aaggcaaaat aaaaggagca aagc 24

<210> 1620
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1620
tgtacccgag acatcttcac cac 23

<210> 1621
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1621
aattgaagga cgggtattgt ggaaag 26

<210> 1622
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1622
cgattttgac agatggcgat aatgaa 26

<210> 1623
<211> 1569
<212> DNA
<213> Staphylococcus aureus

<400> 1623
atgaaaataa tgttagaggg acttaatata aaacattatg ttcaagatcg tttattgttg 60
aacataaatc gcctaaagat ttatcagaat gatcgtattg gtttaattgg taaaaatgga 120
agtggaaaaa caacgttact tcacatatta tataaaaaaa ttgtgcctga agaaggtatt 180
gtaaaacaat tttcacattg tgaacttatt cctcaattga agctcataga atcaactaaa 240
agtggtggtg aagtaacacg aaactatatt cggcaagcgc ttgataaaaa tccagaactg 300
ctattagcag atgaaccaac aactaactta gataataact atatagaaaa attagaacag 360
gatttaaaaa attggcatgg agcatttatt atagtttcac atgatcgcgc ttttttagat 420
aacttgtgta ctactatatg ggaaattgac gagggaagaa taactgaata taaggggaat 480
tatagtaact atgttgaaca aaaagaatta gaaagacatc gagaagaatt agaatatgaa 540
aaatatgaaa aagaaaagaa acgattggaa aaagctataa atataaaaga acagaaagct 600
caacgagcaa ctaaaaaacc gaaaaactta agtttatctg aaggcaaaat aaaaggagca 660
aagccatact ttgcaggtaa gcaaaagaag ttacgaaaaa ctgtaaaatc tctagaaacc 720
agactagaaa aacttgaaag cgtcgaaaag agaaacgaac ttcctccact taaaatggat 780
ttagtgaact tagaaagtgt aaaaaataga actataatac gtggtgaaga tgtctcgggt 840
acaattgaag gacgggtatt gtggaaagca aaaagtttta gtattcgcgg aggagacaag 900
atggcaatta tcggatctaa tggtacagga aagacaacgt ttattaaaaa aattgtgcat 960
gggaatcctg gtatttcatt atcgccatct gtcaaaatcg gttattttag ccaaaaaata 1020
gatacattag aattagataa gagcatttta gaaaatgttc aatcttcttc acaacaaaat 1080
gaaactctta ttcgaactat tctagctaga atgcattttt ttagagatga tgtttataaa 1140
ccaataagtg tcttaagtgg tggagagcga gttaaagtag cactaactaa agtattctta 1200
agtgaagtta atacgttggt actagatgaa ccaacaaact ttcttgatat ggaagctata 1260
gaggcgtttg aatctttgtt aaaggaatat aatggcagta taatctttgt atctcacgat 1320
cgtaaattta tcgaaaaagt agccactcga ataatgacaa ttgataataa agaaataaaa 1380
atatttgatg gcacatatga acaatttaaa caagctgaaa agccaacaag gaatattaaa 1440
gaagataaaa aacttttact tgagacaaaa attacagaag tactcagtcg attgagtatt 1500
gaaccttcgg aagaattaga acaagagttt caaaacttaa taaatgaaaa aagaaatttg 1560
gataaataa 1569

<210> 1624
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1624
ttctttaatg ctcgtagatg aaccta 26

<210> 1625
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1625
ttttcgtatt cttcttgttg ctttc 25

<210> 1626
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1626
aggaatgatt aagccccctt caaaaa 26

<210> 1627
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1627
ttacattgcg accatgaaat tgctct 26

<210> 1628
<211> 1658
<212> DNA
<213> Staphylococcus aureus

<400> 1628
atgcttaaaa tcgacatgaa gaatgtaaaa aaatattatg cagataaatt aattttaaat 60
ataaaagaac taaagattta tagtggggat aaaataggta ttgtaggtaa gaatggagtt 120
ggcaaaacaa cacttttaaa aataataaaa ggactaatag agattgacga aggaaatata 180
attataagtg aaaaaacaac tattaaatat atctctcaat tagaagaacc acatagtaag 240
ataattgatg gaaaatatgc ttcaatattt caagttgaaa ataagtggaa tgacaatatg 300
agtggtggtg aaaaaactag atttaaacta gcagagggat ttcaagatca atgttcttta 360
atgctcgtag atgaacctac aagtaattta gatatcgaag gaatagagtt gataacaaat 420
acttttaaag agtaccgtga tacttttttg gtagtatctc atgatagaat ttttttagat 480
caagtttgta caaaaatttt tgaaattgaa aatggatata ttagagaatt catcggtaat 540
tatacaaact atatagagca aaaagaaatg cttctacgaa agcaacaaga agaatacgaa 600
aagtataatt ctaaaagaaa gcaattggag caagctataa agctaaaaga gaataaggcg 660
caaggaatga ttaagccccc ttcaaaaaca atgggaacat ctgaatctag aatatggaaa 720
atgcaacatg ctactaaaca aaaaaagatg catagaaata cgaaatcgtt ggaaacacga 780
atagataaat taaatcatgt agaaaaaata aaagagcttc cttctattaa aatggattta 840
cctaatagag agcaatttca tggtcgcaat gtaattagtt taaaaaactt atctataaaa 900
tttaataatc aatttctttg gagagatgct tcatttgtca ttaaaggtgg agaaaaggtt 960
gctataattg gtaacaatgg tgtaggaaaa acaacattgt tgaagctgat tctagaaaaa 1020
gtagaatcag taataatatc accatcagtt aaaattggat acgtcagtca aaacttagat 1080
gttctacaat ctcataaatc tatcttagaa aatgttatgt ctacctccat tcaagatgaa 1140
acaatagcaa gaattgttct agcaagatta cattttttatc gcaatgatgt tcataaagaa 1200
ataaatgttt tgagtggtgg agaacaaata aaggttgctt ttgccaagct atttgttagc 1260
gattgtaata cattaattct tgatgaacca acaaactatt tggatatcga tgctgttgag 1320
gcattagaag aattgttaat tacctatgaa ggtgttgtgt tatttgcttc ccatgataaa 1380
aaatttatac aaaacctagc tgaacaattg ttaataatag aaaataataa agtgaaaaaa 1440
ttcgaaggaa catatataga atatttaaaa attaaagata aaccaaaatt aaatacaaat 1500
gaaaaagaac tcaaagaaaa aaagatgata ctagaaatgc aaatttcatc attattaagt 1560

aaaatctcaa tggaagaaaa tgaagaaaaa aacaaagaat tagatgaaaa gtacaaattg 1620
aaattaaaag aattgaaaag cctaaataaa aatattta 1658

<210> 1629
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1629
aaggggaaag tttggattac acaaca 26

<210> 1630
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1630
gaaccacagg gcattatcag aacc 24

<210> 1631
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1631
cgacgatgct ttatggtttg t 21

<210> 1632
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1632
gttaatttgc ctatcttgtc acactc 26

<210> 1633
<211> 900
<212> DNA
<213> Staphylococcus aureus

<400> 1633
atggaattta aattacaaga attaaatctt actaaccaag atacaggacc atatggtata 60
accgtttcag ataaggggaa agtttggatt acacaacata aagcaaatat gataagttgc 120
atcaatttag atggaaaaat tacagagtac ccactaccga caccagatgc aaaagtcatg 180
tgtttaacta tatcctcaga tggggaagtt tggtttactg agaatgcagc aaacaaaata 240

gggaggatta caaaaaaagg gattattaag gaatatacat tgcctaaccc agattcagca 300
ccctacggta ttacagaagg accaaatgga gatatatggt ttacagaaat gaatggcaac 360
cgtattggac gtattacgga cgacggtaaa attcgtgaat acgagctgcc taataaagga 420
tcttaccctt cttttatcac tttgggttct gataatgccc tgtggttcac agaaaatcaa 480
aataatgcta ttggtagaat tacagaaagt ggggatatta cagagtttaa aattcctaca 540
cctgcatcag gaccagttgg tattacaaag gggaacgacg atgctttatg gtttgtggaa 600
attatcggta ataagatagg gcgaataact cctctggggg aaattaccga attcaaaatt 660
ccaacgccaa acgctcgacc tcatgcaatt actgctggag caggaattga tttatggttt 720
actgaatggg gggctaataa aataggaagg ctgacaagca ataatataat tgaggaatac 780
ccaattcaaa tcaaaagtgg tgaaccacat ggcatttgtt tcgatggtga aacaatttgg 840
tttgcaatgg agtgtgacaa gataggcaaa ttaactctca ttaaggataa tatggagtga 900

<210> 1634
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1634
ttaacttgtc tattcccgat tcagg 25

<210> 1635
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1635
gctgtggcaa tggatattct gta 23

<210> 1636
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1636
ttcctacccc tgatgctaaa gtga 24

<210> 1637
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1637
caaagtgcgt tatccgaacc taa 23

<210> 1638

<211> 527
<212> DNA
<213> Aspergillus fumigatus strain WSA-172

<400> 1638
ggtggggaag actgtcttca tccaggaatt gattgtgagt cgttccacat gctcacctag 60
ttttcgctcg atcttttcac taacgcaaac catgtagaac aacattgcca aggcccacgg 120
tggttactcc gtcttcactg gtgttggtga gcgtactcgt gagggtaacg atctgtacca 180
cgaaatgcag gagactggtg tcattcagct cgagggtgaa tccaaggtcg cactggtgtt 240
cggacagatg aacgagcccc ccggtgcccg tgcccgtgtc gcccttaccg gtctgaccat 300
tgccgagtac ttccgtgacg aggagggtca ggacgtgctg ctcttcattg acaacatttt 360
ccgtttcacc caggccggtt ctgaggtgtc tgcccttctc ggtcgtatcc cctctgccgt 420
cggttaccag cccaccctgg ccgtcgacat gggtggtatg caggagcgta tcaccaccac 480
caagaagggt tctattacct ccgtccargc cgtctacgtc cccgcga 527

<210> 1639
<211> 452
<212> DNA
<213> Aspergillus fumigatus ATCC 64746

<400> 1639
actgtcttga ttcaagaact tattaacaac attgctaaag cccatggtgg ttactctatt 60
ttctgtggtg ttggtgaacg tactcgtgaa ggtaacgatt tataccacga aatgatggaa 120
actggtgtca ttaaacttga aggtgactcc aagtgtgctc ttgtattcgg tcaaatgaac 180
gaacctcctg gtgctcgtgc ccgtgttgct ttaactggtt taaccattgc tgaatacttc 240
cgtgatgaag aaggtcaaga tgtgttactt ttcattgata acattttccg tttcactcaa 300
gctggttctg aagtatctgc ccttttaggt cgtattccat ctgctgtagg ttaccaaccc 360
actttatcta ctgatatggg tggtatgcaa gaacgtatta ctactaccaa gaatggttcc 420
attacctctg tacargccgt ctacgtcccc gc 452

<210> 1640
<211> 783
<212> DNA
<213> Bacillus mycoides ATCC 6462

<400> 1640
acgcccttac ggtaaaacaa agcaacgaaa acggaagcat gaacttaaca tttgaagttg 60
cacttcattt aggtgatgat acagttcgta cagttgcgat gtcttccaca gatggacttg 120
ttcgtggcac agaagtagaa gatactggta aagcaatctc tgtaccagtt ggtgatgcaa 180
cacttggtcg tgtattcaac gtattaggtg atgcaattga cttagatggt gaacttcctg 240
cggatgtaca ccgtgatcca attcaccgtc aagcacctgc attcgaagaa ttatctacta 300
aagtagaaat tcttgaaact ggtattaaag tagtagactt acttgctcct tacattaagg 360
gtggtaagat cggcctattc ggtggtgccg gcgtaggtaa aacagtatta attcaagaat 420
taattaacaa catcgcacaa gagcacggtg gtatctctgt attcgctggt gtaggtgagc 480
gtactcgtga gggtaatgac ttataccatg aaatgagcga ttctggcgta atcaagaaaa 540
ctgcgatggt attcggacaa atgaatgagc cacctggagc acgtcaacgt gttgcattaa 600
caggtttaac aatggctgag catttccgtg atgagcaagg acaagacgta cttctgttca 660
tcgataacat cttccgtttc acgcaagcgg gttctgaagt atctgccctt cttggtcgta 720
tgccatctgc ggtaggttac caaccaacac ttgcaacaga aatgggtcaa ttacaagagc 780
gta 783

<210> 1641
<211> 823
<212> DNA
<213> Bacillus mycoides NRRL NRS-319

<400> 1641
atctacaacg cccttacggt aaaacaaagc aacgaaaacg gagcaagcat taacttaaca 60
tttgaagttg cacttcattt aggtgatgac acagttcgta cagttgcaat gtcttccaca 120
gatggacttg ttcgtggcac agaagtagaa gatactggta aagcaatctc tgtaccagtt 180
ggtgatgcaa cacttggtcg tgtattcaac gtattaggtg atgcaattga cttagatggt 240
gatgttcctg cggatgtacg tcgtgatcca attcaccgtc aagcacctgc attcgaagaa 300
ctatctacta aagtagaaat tcttgaaact ggtattaaag tagtagactt acttgctcct 360

tacattaagg gtggtaagat cggtctattc ggtggtgccg gtgtaggtaa aacagtatta 420
attcaggaat taattaacaa catcgcacaa gaacacggtg gtatctctgt attcgctggt 480
gtaggtgagc gtactcgtga gggtaacgac ttataccatg aaatgagcga ttctggcgta 540
attaagaaaa ctgcgatggt attcggacaa atgaatgagc cacctggagc acgtcaacgt 600
gttgcattaa caggtttaac aatggctgaa catttccgtg atgagcaagg acaagacgta 660
ctattgttca tcgataacat cttccgtttc acgcaagcag gttctgaagt atctgccctt 720
cttggtcgta tgccatctgc ggtaggttac caaccaacac ttgcaacaga aatgggtcaa 780
ttacaagagc gtattacatc tacaaataaa ggatctatca cgt 823

<210> 1642
<211> 829
<212> DNA
<213> Bacillus mycoides NRRL BD-15

<400> 1642
gatggcggaa agctaccaga aatctacaac gcccttacgg taaaacaaag caacgaaaac 60
ggagcaaaca ttaacttaac atttgaagtt gcacttcatt taggtgatga tacagttcgt 120
acagttgcga tgtcttccac agatggactt gttcgtggca cagaagtaga agatactggt 180
aaagcaatct ctgtaccagt tggtgatgta acacttggtc gtgtattcaa cgtattaggt 240
gatgcaattg acttagatgg tgaagttcct gcggatgtac gtcgtgatcc aattcaccgt 300
caagcacctg cattcgaaga attatctact aaagtagaaa ttcttgaaac tggtattaaa 360
gtagtagact tacttgctcc ttacattaag ggtggtaaga ttggtctatt cggtggtgcc 420
ggtgtaggta aaacagtatt aattcaggaa ttaattaaca acatcgcaca agaacacggt 480
ggtatctctg tattcgccgg tgtaggtgag cgtactcgtg aaggtaacga cttataccac 540
gaaatgagcg attctggcgt aattaagaaa actgcgatgg tattcggaca aatgaacgag 600
ccacctggag cacgtcaacg tgttgcatta acaggtttaa caatggctga gcatttccgt 660
gatgagcaag gacaagacgt actactgttc atcgataaca tcttccgttt cacgcaagca 720
ggttctgaag tatctgccct tcttggtcgt atgccatctg cggtaggtta ccagccaaca 780
cttgcaacag aaatgggtca attacaagag cgtattacat ctacaaata 829

<210> 1643
<211> 823
<212> DNA
<213> Bacillus pseudomycoides NRRL BD-10

<400> 1643
aatctacaat gcccttacgg taaaacaaag caacgaaaac ggagcaagca ttaacttaac 60
atttgaagtt gcacttcatt taggtgatga cacagttcgt acagttgcga tgtcttccac 120
agatggactt gttcgtggca cagaagtaga agatactggt aaaccaatct ctgtaccggt 180
tggtgatgca acacttggtc gtgtatttaa cgtattaggt gatgcaattg acttagatgg 240
tgaagttcct gcggatgtac gccgtgatcc aattcaccgt caagcacctg cgttcgaaga 300
gttatctacg aaagtagaaa ttcttgaaac tggtattaaa gtagtagact tacttgctcc 360
ttacattaaa ggtggtaaaa tcggtctatt cggtggtgcc ggtgtaggta aaacagtatt 420
aatccaggaa ttaattaaca acatcgcaca agagcacggt ggtatttctg tattcgctgg 480
tgtaggtgag cgtactcgtg aaggtaatga cttataccac gaaatgagcg attctggcgt 540
aatcaagaaa acagcgatgg tattcggaca aatgaacgag ccacctggtg cacgtcaacg 600
tgttgcatta acaggattaa caatggctga acatttccgt gatgagcaag gacaagacgt 660
actattgttc atcgataaca tcttccgttt cacgcaagcg ggttctgaag tatctgccct 720
tcttggtcgt atgccatctg cggtaggtta ccaaccaact cttgcaacag aaatgggtca 780
attacaagag cgtattacat ctacaaataa aggatctatc acg 823

<210> 1644
<211> 708
<212> DNA
<213> Bacillus pseudomycoides NRRL B-617

<400> 1644
ggaaagctac ctgaaatcta caatgccctt agaattaaac aagacgcagt taacttaact 60
ttagaagttg cacttcactt aggtgatgat acagttcgta cagttgcgat gtcttccaca 120
gacggacttg ttcgtggtac tgcagtagaa gatactggca aagcgatttc tgttccagtt 180
ggtgatgcaa cacttggtcg tgtatttaac gtattaggtg atgcaattga cttagatggt 240
gaggttccag cagatgtacg ccgtgatcca attcaccgtc aagcacctgc attcgaagag 300
ttatctacaa aagtagaaat tcttgaaact ggtattaaag tagtagactt acttgctcct 360

tacattaaag gtggtaaaat cggtctattc ggtggtgccg gtgtaggtaa aacagtatta 420
attcaggaat taattaacaa catcgcacaa gagcacggtg gtatctctgt attcgctggt 480
gtaggtgagc gtactcgtga aggtaacgac ttataccatg aaatgagcga ttctggcgta 540
atcaagaaaa ctgcgatggt attcggacaa atgaacgagc cacctggtgc acgtcaacgt 600
gttgcattaa caggtttaac aatggctgaa catttccgtg atgagcaagg acaagacgta 660
ctattgttca tcgataacat cttccgtttc acgcaagcgg gttctgaa 708

<210> 1645
<211> 778
<212> DNA
<213> Budvicia aquatica ATCC 35567

<400> 1645
gtacgatgcg cttgaagttc aaaacgatgt caaactagtg ctggaagttc aacagcagct 60
cggtggtggt gtcgttcgtt gtatcgctat gggtacctca gatggcctaa gccgcggtct 120
gaaagtactt gatttagaac accctatcga agttcctgtc ggtgtggcaa ctctgggccg 180
tattatgaac gtgcttggtg agcctatcga tatgaagggt gacattggtg aagaagagcg 240
ttgggctatc catcgcgctg caccaagcta cgaagattta tccagtgcta acgaactgct 300
ggaaacgggc atcaaggtta tcgacctgat ttgtccgttt gccaaaggcg gtaaagttgg 360
tctgtttggt ggtgccggcg taggtaaaac ggtaaacatg atggagctga ttcgtaatat 420
tgcgactgag cactcaggtt actctgtatt tgccggcgtt ggtgagcgta ctcgtgaggg 480
taatgacttc taccacgaaa tgacagaatc taacgtatta gacaaagtat ctctggttta 540
tggccaaatg aatgagccac cgggaaaccg tctgcgcgtt gcgttaaccg gcctgaccat 600
ggcggaaaaa ttccgtgatg aaggccgtga cgttctgctg tttatcgata acatttatcg 660
ttatacctta gccggtacag aagtatcagc actgttaggt cgtatgccat cagcggtagg 720
ttaccaacca acgctggcgg aagagatggg tacactgcaa gaacgtatca cytcaacc 778

<210> 1646
<211> 806
<212> DNA
<213> Buttiauxella agrestis ATCC 33320

<400> 1646
gatgccgtac caaaagtgta cgacgctctt gaggttacaa atggtaaaga ccgtctggtg 60
ctggaagttc agcaacagtt aggtggtggc gtagtgcgta ctatcgccat gggtacttct 120
gatggtttgc gtcgtggtct ggaagtttct aacctcgatc acccaattga agtgccagta 180
ggtaaagcaa ctctgggccg tatcatgaac gtcctgggcg agcctatcga catgaaaggc 240
gatatcggcg aagaagagcg ttgggcgatt caccgtgctg ctcctagcta cgaagaactg 300
tctagctccc aggatctgct ggaaaccggc atcaaagtaa tggacctgat ttgcccgttc 360
gctaagggtg gtaaagtcgg tctgttcggt ggtgcgggtg tgggtaaaac tgtaaacatg 420
atggagctga tccgtaacat cgcgatcgag cactccggtt actcagtgtt tgcaggcgtg 480
ggggaacgta ctcgtgaggg taacgacttc taccatgaaa tgaccgattc caacgttctg 540
gacaaagtat cactggttta tggccagatg aacgagccac caggtaaccg tctgcgcgtt 600
gcgttgaccg gtctgaccat ggctgagaag ttccgtgacg aaggtcgtga cgttctgctg 660
ttcgttgata acatttaccg ttataccctg gccggtacag aagtatctgc gctgctgggt 720
cgtatgccat ctgcggtagg ttaccagcca actctggcag aagagatggg tgttttgcag 780
gagcgtatta cctccaccaa aactgg 806

<210> 1647
<211> 1122
<212> DNA
<213> Candida norvegica ATCC 36586

<400> 1647
gaaaccgttg ttgacactgg ttccccaatc accgtcccag ttggtcgtga aaccttgggt 60
cgtatcatta acgttatcgg tgaaccaatc gatgaacgtg gtccaatcaa caccaagcaa 120
agaaacccaa tccatgctga tcctccttca tttgctgaac aatccacttc tgctgaagtt 180
ttagaaaccg gtattaaagt tgtcgattta ttggctcctt atgccagagg tggtaaaatt 240
ggtttattcg gtggtgccgg tgtcggtaaa accgtcttta tccaagaatt gattaacaac 300
attgctaaag ctcatggtgg tttctcagtc ttcaccggtg tcggtgaaag aaccagagaa 360
ggtaacgatt tataccgtga aatgaaagaa accggtgtca ttaacttgga aggtgactct 420
aaagtcgctt tagtcttcgg tcaaatgaac gaacctccag gtgctagagc ccgtgttgcc 480
ttaaccggtc taaccattgc tgaatacttc agagatgaag aaggtcaaga tgtcttgtta 540

ttcgttgata acattttcag attcacccaa gctggttcag aagtctctgc cttattaggt 600
cgtattccat ctgctgtcgg ttatcaacca accttggcca ctgatatggg tttgttgcaa 660
gaacgtatca ccaccaccag aaaaggttcc gtcacttctg tccaagctgt ttatgtccca 720
gctgatgatt tgactgatcc tgccccagcc accactttcg cgcatttgga tgctactact 780
gtcttgtctc gtggtatctc agaattgggt atctacccag ctgtcgatcc attggattcc 840
aaatcaagat tattagatgc cgctgttgtt ggtcaagaac attacgatgt tgctactcaa 900
gttcaacaaa ctttacaagc ctacaaatct ttacaagata ttatcgctat tttaggtatg 960
gatgaattat cagaacaaga taaattgacc gttgaaagag ctagaaagat ccaacgtttc 1020
ttatctcaac catttgctgt cgctgaagtt ttcactggta ttccaggtag attagttaga 1080
ttgaaagaaa ccgttgcttc attcagagac gttttagctg gt 1122

<210> 1648
<211> 813
<212> DNA
<213> Streptococcus pneumoniae ATCC 700677

<400> 1648
tacgtctctt accctgacga tgatttgcaa gtcgcatcta cggtcgtaga tgtttcaaat 60
ggtaaagtca tcgcccaact tggagctcgt caccaagcaa gtaacgtttc atttggtacc 120
aaccaagctg tggaaaccaa tcgtgactgg ggatcaacta tgaaaccaat cacagactat 180
gctcctgcct tggagtacgg tgtctacgat tcaactgcta ctatcgttca cgatgagccc 240
tataactacc ctgggacaga tatccctctc tataactggg atcgagcata tttcggtaat 300
attactctgc aatatgccct tcaacaatct cgtaacgtac ctgccgttga aacactaaac 360
aaggtcggtc tagataaggc taaaaccttc cttaatggtc ttggtatcga ctatccaagc 420
atgcattatg caaacgccat ttcaagtaat acaactgaat ccaacaaaaa atatggtgca 480
agtagtgaaa aaatagctac cgcctatgcc gcattcgcaa atggtggtat ttaccacaaa 540
ccaatgtaca tcaataaagt tgtctttagc gatggtagcg aaaaagaatt ttctgaccct 600
ggcacaagag ccatgaaaga aacgactgct tacatgatga cagaaatgat gaaaacagtc 660
tggacgtacg gaactggtcg tggtgcctac ctgccttggc ttcctcaagc tggtaaaaca 720
ggtacctcta actatactga cgaagaaatt gaaaagtata tcaagaacac tggttacgta 780
gctccagatg aaatgtttgt gggttatacc cgt 813

<210> 1649
<211> 813
<212> DNA
<213> Campylobacter lari ATCC 43675

<400> 1649
attaatgaag ctattgttgt taattatgaa ttagaaggaa aagaatgcaa gctagttctt 60
gaagtagctg cacatttagg cgataataaa gtaagaacca tcgctatgga tatgacagat 120
ggtcttgtta gaggtttaac agccgtcgca actggaaatc caattagtgt tccagtaggc 180
gaaaaagttc ttggaagaat ttttaatgta acgggtgatt tgattgatga gggcgaagaa 240
atcaattttg ataagcactg gtcaattcat agagatccac ctccatttga agaacaaagt 300
acaaaaagcg aaatctttga aacaggtata aaggttgttg atttgctagc tccttatgct 360
aaaggtggaa aagttggtct ttttggtggt gcaggtgttg gtaaaaccgt tattattatg 420
gaattaattc acaatgttgc atttaaacat agcggatatt ctgtttttgc aggtgttggc 480
gaaagaactc gtgagggtaa tgacctttac aatgaaatga aagaaagtaa tgtattagat 540
aaagttgcat tgtgttatgg tcaaatgaat gaaccaccag gggcaagaaa tcgtatagct 600
ttaacaggtc ttactatggc tgagtatttt agagatgaaa tgggacttga tgttttaatg 660
attattgata atattttcag attttctcaa tcaggctcag aaatgtcagc acttttagga 720
agaattcctt cagctgttgg ttatcaacca accttagcta gtgaaatggg taagttccaa 780
gaaagaatta cttcaaccaa gaaaggatct att 813

<210> 1650
<211> 570
<212> DNA
<213> Coccidioides immitis strain WSA-222

<400> 1650
ggtggggaag actgtgttca ttcaggaatt gattgtaagt tctgttatca actaaagccg 60
acagcggttg ctgatatgct ctagaacaac attgctaagg ctcacggtgg ttactccgtg 120
ttcactggtg tcggtgagcg tacccgtgag ggtaacgatt tgtaccatga aatgcaagag 180
acccgtgtca ttcaactcga cggagagtcc aaggtcgctc ttgtcttcgg tcaaatgaac 240

gagccccctg gtgcccgtgc ccgtgttgcc cttaccggtt tgaccattgc tgaatacttc 300
cgtgacgagg aaggccaaga cggtaggctt catgcttcta tcgctagggg cgtgtgatac 360
aggaggctaa tcgcttttct agtgcttctc tttattgaca acattttccg tttcactcaa 420
gctggttctg aagtgtctgc cttgctcggt cgtattcctt ccgctgtcgg ttaccaacct 480
actctcgccg tcgacatggg tgttatgcag gaacgtatca ccaccaccac caagggatcc 540
attacttcag tgcargccgt ctacgtcccc 570

<210> 1651
<211> 560
<212> DNA
<213> Emmonsia parva ATCC 10784

<400> 1651
tgtcttcatc caggagttaa ttgtacgttt tttgtctgcc tactataata gacgaagaaa 60
tattttgatt tatttttcta ataattcaaa tagaacaaca ttgccaaagc ccacggtggt 120
tactctgtct tcactggtgt tggcgagcgg acccgtgaag gaaacgatct gtaccacgaa 180
atgcaggaga cccgtgtcat ccagctcgat ggcgagtcca aggtcgccct cgtcttcggt 240
caaatgaacg aacccccccgg agcccgtgcc cgtgttgccc tcactggtct gaccgttgct 300
gaatacttcc gtgacgagga aggtcaagat ggtgcgtata tatatattcg ccagtaattt 360
gactcgaagc tccactcaca catatattag tgctcctctt catcgacaac attttccgct 420
tcacccaggc aggttccgaa gtgtccgccc tgctcggccg tatcccctcc gccgtcggtt 480
accagcccac cctcgctgtc gacatgggta tgatgcagga acgtatcacc accaccacca 540
agggctccat cacctccgtg 560

<210> 1652
<211> 780
<212> DNA
<213> Erwinia amylovora ATCC 14976

<400> 1652
ccacaagtgt acagcgccct tgaggttaaa aatggtgatg ctcgtctggt gctggaagtt 60
cagcagcagc tgggcggtgg cgtggttcgt accatcgcca tgggttcttc agacggcctt 120
aagcgtggtc tggaagccgt tgaccttcag cacccaattg aagtaccggt aggtactgcc 180
acacttggcc gtatcatgaa cgtgctgggt gagccgatcg atatgaaagg cgacattggc 240
gaagaagagc gctgggcgat tcaccgctct gcaccttctt acgaagatca gtcgaactct 300
caggatctgc tggaaaccgg catcaaggtg attgacctga tgtgtccgtt cgccaagggc 360
ggtaaagtcg gcttgttcgg tggtgcgggc gtaggtaaaa ccgtcaacat gatggagctt 420
attcgtaaca ttgcggctga gcactcaggt ttctcggtat ttgccggtgt gggtgagcgt 480
acccgtgaag gtaacgactt ctaccacgaa atgaccgact ccaacgttat cgacaaagtt 540
tcgctggtct atggtcagat gaacgagcca ccgggtaacc gtctgcgcgt tgcgctgacc 600
ggtctgacca tggcggagaa gttccgtgac gaaggtcgtg acgtactgct gtttatcgat 660
aacatctatc gttacaccct ggccggtact gaagtctccg ctctgctggg tcgtatgcct 720
tctgcggtag gttaccagcc aacgctggcg gaagagatgg gcgttctgca ggaacgtatc 780

<210> 1653
<211> 545
<212> DNA
<213> Fonsecaea pedrosoi ATCC 18831

<400> 1653
tgtgttcatt caggagctga ttgtgagtac cccggagatt ttcctgcgat tgcgcatgaa 60
gcaagcgctg acgtccatct agaacaacat cgccaaggct cacggtggtt actccgtgtt 120
ctgcggtgtc ggcgagcgta ctcgtgaggg taacgatttg taccacgaaa tgcaggagac 180
cggtgtcatc aacctcgagg gcgagtccaa ggtcgccctt gtcttcggtc agatgaacga 240
gcccccggga gcccgtgccc gtgtcgccct tactggtctt accgtcgctg agtaagtttt 300
gacaaccaga agcgagtatt gccacaatta ctgactaaaa atcaagatat ttccgtgacg 360
aggagggcca ggatgtgctt ctcttcattg acaacatttt ccgtttcacc caggccggtt 420
ctgaggtgtc cgctcttctc ggccgtattc cctctgccgt cggttaccag cccactctcg 480
ccgtcgacat gggtatgatg caggagcgta tcaccaccac ccagaagggt tccatcactt 540
ccgtc 545

<210> 1654

<211> 564
<212> DNA
<213> Fusarium moniliforme strain WSA-213

<400> 1654
tgtgtttatt caggagctca tcaacaacat cgccaaggcc cacggtggtt actctgtctt 60
cactggtgtc ggtgagcgaa cccgtgaggg taacgatctg taccacgaaa tgcaggagac 120
ttccgttatt cagcttgatg gcgagtccaa ggttgccctg gttttcggtc agatgaacga 180
gccccctgga gctcgtgccc gtgtcgctct taccgggtaa gttgatagat agtgccttcc 240
cttcctgttt caacacctca acaccaccac tccccaagac attgctactc atactgcacc 300
atgatattat atttacgcct cttggacgct agctaatgtt gtatcgacag tttgactgtt 360
gctgagtact tcagagacga ggagggtcag gacgtgctgc ttttcattga caacattttc 420
cgattcactc aggccggttc cgaggtgtct gcccttctcg gtcgtatccc ctctgccgtc 480
ggttaccagc ccactctggc cgtcgacatg ggtggtatgc aggagcgtat taccaccacc 540
accaagggtt ccattacctc agtc 564

<210> 1655
<211> 776
<212> DNA
<213> Klebsiella oxytoca ATCC 13182

<400> 1655
cgtaccgcgc gtgtacgagg ctcttgaggt acaaaatggt agtgagaatc tggtgctgga 60
agttcagcag cagctcggcg gcggtattgt tcgtaccatc gccatgggtt cttccgacgg 120
tctgcgtcgc ggtctggaag tcaaagacct cgagcatccg atcgaagtcc cggtaggtaa 180
agcaacgctg ggtcgtatca tgaacgtact gggccaaccg gtagacatga aaggcgacat 240
cggcgaagaa gagcgttggg cgattcaccg cgcagcgcct tcctacgaag agttgtcaaa 300
ctctcaggaa ctgctggaaa ccggcatcaa agttatcgac ctgatgtgtc cgtttgcgaa 360
gggcggtaaa gttggtctgt tcggtggtgc gggtgtaggt aaaaccgtaa acatgatgga 420
gctgatccgt aacatcgcga tcgagcactc cggttactcc gtgtttgcgg gcgtaggtga 480
acgtactcgt gagggtaacg acttctacca cgaaatgacc gactccaacg ttatcgataa 540
agtatccctg gtgtatggcc agatgaacga gccgccggga aaccgtctgc gcgttgcgct 600
gaccggcctg accatggctg agaagttccg tgacgaaggt cgtgacgttc tgctgttcgt 660
cgataacatc tatcgttaca ccctggccgg tactgaagta tccgcactgc tgggtcgtat 720
gccttcagcg gtaggttacc agccgactct ggcggaagag atgggcgttc tgcagg 776

<210> 1656
<211> 572
<212> DNA
<213> Microsporum audouinii ATCC 11347

<400> 1656
gtgttcatcc aggagttgat tgtaagtgat tatattcccc tagaaagaaa tgttttgaac 60
aaaagtctcg aattagaaaa ttcttttcag atactaattt actatagaac aacattgcca 120
aggctcacgg tggttactcc gtcttcaccg gtgtcggaga gcgaacccgt gaaggaaacg 180
atctgtacca tgaaatgcag gaaactcgtg tcatccaact tgatggcgag tccaaggtcg 240
ccctggtctt cggtcagatg aacgagcccc caggtgcccg tgcccgtgtt gctcttactg 300
gtttgaccat tgctgagtac ttccgtgatg aggaaggtca agacggtatg ttctttaaat 360
tagatatctt ctggagaaac agcgtctaac aaattcttcc agtgcttctc ttcatcgaca 420
acatcttccg tttcactcag gctggttccg aagtgtctgc cctgcttggt cgtattccat 480
ctgccgtcgg ttaccaaccc actcttgccg tcgacatggg tggtatgcag gaacgtatta 540
ccaccaccaa gaagggatcc attacctccg tc 572

<210> 1657
<211> 790
<212> DNA
<213> Obesumbacterium proteus ATCC 12841

<400> 1657
gcctaaagtg tataacgcac ttgaggtgaa aggcggtgcc actaaactgg tactggaagt 60
tcagcagcag ctaggcggcg gcgttgtacg ctgtatcgct atgggtactt ctgacggtct 120
gcgtcgcgga ctggacgttg ttgacctgga gcacccgatt gaagtcccag taggtaaagc 180
gaccttaggc cgcattatga acgtactggg tgagccaatt gatatgaagg gtgatatcgg 240

cgaagaagat cgctgggcta ttcaccgtga agctccaagc tacgaagaac tgtctaactc 300
gcaagaactg ctggaaaccg gtatcaaggt aatggacttg atttgtccgt tcgctaaggg 360
cggtaaagtc ggtctgttcg gtggtgcggg tgttggtaaa acagtaaaca tgatggagct 420
gatccgtaac atcgcgatcg agcactcagg ttactctgta tttgccggcg tgggtgaacg 480
tactcgtgag ggtaacgact tctaccacga aatgaccgac tccaacgtat tggacaaagt 540
atcactggtt tatggccaga tgaacgagcc accaggaaac cgtctgcgcg ttgcgctgac 600
cggtctgact atggctgaga agttccgtga cgaaggtcgt gacgtactgc tgttcatcga 660
taacatctac cgttatacct tggccggtac cgaagtatct gcactgctgg gtcgtatgcc 720
ttctgcggta ggttatcagc caacgctggc ggaagagatg ggtgttctgc aagaacgtat 780
cacctctacc 790

<210> 1658
<211> 622
<212> DNA
<213> Paracoccidioides brasiliensis ATCC 200443

<400> 1658
tgtcttcatt caggagctta tcaacaacat cgccaaggcc cacggtggtt actccgtctt 60
cactggtgtg ggagagcgca ctcgtgaggg aaacgacttg tatcacgaga tgcaagagac 120
ttccgttatc cagctcgaag gcgaatccaa ggttgccctc gtcttcggtc aaatgaacga 180
gcctccgggt gctcgtgctc gtgttgctct caccggtcgt aagtgctcct tcccagattt 240
ctcttcccca gtttctggac ccacttttc cttccaccac cattctactg ggtaggacca 300
agatagcact gcctattctg gtgccttcct accgcctact ctactgccta ttccaccacc 360
ttttctaccg cctcttctac ttgctattgt atactaactt actcaaacag ttactattgc 420
tgagtacttc cgtgacgctg agggccagga tgtgcttctc ttcatcgaca acattttccg 480
tttcacccag gccggttccg aggtgtccgc tcttctcggt cgtatcccct ccgccgtcgg 540
ttaccagccc acccttgccg tcgacatggg tggtatgcag gagcgtatca ccaccaccaa 600
gaagggatcc attacctccg tc 622

<210> 1659
<211> 794
<212> DNA
<213> Plesiomonas shigelloides ATCC 14029

<400> 1659
gacgctgtac ctcaggtgta cgatgcactg acagttgagg gtgctgagct ggtactggaa 60
gtgcagcagc agctgggtgg tggtgttgtt cgctgtatcg cgatgggtgc ctctgatggc 120
ctcaagcgcg gtctgaaagc gcacaatact ggtgctccta tcactgtacc ggtgggtgtg 180
gaaacactgg gccggatcat ggatgtgttg ggtaacccga ttgaccagaa aggtccaatc 240
ggtgaacaag atcgctgggt gatccaccgt gaagcaccaa gctacgaaga tcaggctaac 300
agcactgaac tgctggaaac cggtatcaag gttatcgacc tggtatgccc gtttgcgaaa 360
ggcggtaaag tcggtctgtt cggtggtgcc ggtgtaggta aaaccgtaaa catgatggag 420
ctgatccgta acatcgcgat cgagcactcc ggttattccg tgtttgcggg cgtgggtgag 480
cgtacccgtg aaggtaacga cttctaccac gaaatgacag actccaacgt actggacaaa 540
gtatccctgg tgtacggtca gatgaacgag ccgccaggta accgtctgcg cgtagcactg 600
accggcctga ccattgcgga gaaattccgt gatgaaggtc gtgacgtact gctgttcatc 660
gataacatct accgttatac cctggcgggg accgaagtat cggcactgct gggccgtatg 720
ccttctgcgg taggttatca gccaacgctg gcggaagaga tgggtgtact gcaagagcgt 780
attacctcta cccg 794

<210> 1660
<211> 799
<212> DNA
<213> Shewanella putrefaciens ATCC 8071

<400> 1660
aggtatatga cgctstgaag atcacaggtg aaggcgcctg taatggtttg gtgctggaag 60
ttcagcaaca gctaggcggt ggtgtagttc gtactatcgc tatgggttct tctgatggtc 120
tgcgtcgtgg tcttgaggtt gttaactcag gttcacctat ttctgttcct gttggtaccg 180
ccacgcttgg ccgtatcatg aacgtattag gtgagcctat tgatgaagcg ggtccaatcg 240
gtgaagaaga gcgttatgtt attcaccgtg cagcaccttc atatgaagat caatcgaaca 300
ctactgaact gttagagaca ggtatcaagg ttattgacct tgtttgtcca ttcgctaagg 360
gtggtaaagt aggtctgttc ggtggtgcgg gtgttggtaa aacagttaac atgatggaac 420

tgattaacaa catcgctaaa gctcactcgg gtctttcggt gttcgccggt gtgggtgaac 480
gtactcgtga aggtaacgac ttctactacg agatgaaaga ttctggcgtt ctcgacaaag 540
tggccatggt ttatggtcag atgaacgagc caccaggaaa ccgtttacgc gtagcactgt 600
caggtctgac aatggctgag aagttccgtg acgaaggtcg tgacgtattg ttgttcgttg 660
acaacatcta ccgttatacc ttagccggta ctgaagtatc tgcactgtta ggccgtatgc 720
cttctgcggt aggttatcaa ccaacattgg ctgaagaaat gggcgttctg caagagcgta 780
ttacttcaac taagacggg 799

<210> 1661
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1661
tgggaagcga aaatcctg 18

<210> 1662
<211> 774
<212> DNA
<213> Campylobacter curvus ATCC 35224

<400> 1662
ctatgcctca aactagagag catatcttgc tatctcgcca agtaggcgtt ccatatatcg 60
ttgtatttat gaacaaagcc gatatggtcg atgacgctga gcttcttgag ctagtcgaga 120
tggaaattcg cgagcttctt aacgagtaca acttccctgg cgatgatact cctatcatat 180
caggttctgc tcttaaagcc ctcgaagagg ctaaagcagg cgttgatggc gagtggtcag 240
caaaagttct tgagcttatg gataaagtcg atgagtatat cccaactcca gttcgtgcta 300
ccgataaaga cttcctgatg cctatcgaag acgttttctc tatctcaggt cgtggaacgg 360
tcgttactgg taggatcgaa aaaggtgtcg taaaagttgg cgatactatc gagatcgttg 420
gtatcaaacc tactcaaact acgacagtta ctggcgttga gatgtttagg aaagagatgg 480
aacaaggcga ggccggtgat aacgtaggtg ttcttttaag aggtactaaa aaagaagacg 540
tcgagcgcgg catggttctt tgtaagccaa aatcaatcac tcctcataca aaatttgagg 600
gtgaggttta tatcctaaca aaagaggaag gcggacgcca cactccattc tttaacaact 660
atagaccaca attttatgta agaacaacag acgttacagg ttctatcaca cttccagaag 720
gaactgagat ggttatgcct ggagataatg tcagaatttc cgttgaactc atcg 774

<210> 1663
<211> 791
<212> DNA
<213> Campylobacter rectus ATCC 33238

<400> 1663
ttctgcggct gacggcccaa tgccacaaac tagagagcac atcttgctat ctcgccaagt 60
aggcgttccg tatatcgttg tttttatgaa caaagccgat atggtcgatg atgccgagct 120
tcttgagctg gttgagatgg agattcgcga gcttctaaac gagtatgatt tccctggtga 180
cgatactcca atcgtagcag gctctgctct tcaagctctt aatgaagcca aagccggaac 240
agaaggcgag tggtctgcaa aaattcttga gcttatggct aaagttgacg agtatatccc 300
gactccggtt cgtgcaacgg ataaagactt cttgatgcct attgaggacg ttttctctat 360
ctccggtcgc ggcaccgtcg ttaccggcag aatcgaaaaa ggtatcgtaa aagtcggtga 420
tactatcgag atcgtaggta tccgcgatac tcaaacaact accgttaccg gcgttgagat 480
gttcagaaaa gagatggatc aaggcgaagc gggcgataac gtaggcgttc ttctaagagg 540
cactaaaaaa gaagacgttg agcgcggtat ggttctttgc aaacctaaat caatcactcc 600
tcacactaaa tttgagggag aggtttatat cttaactaaa gaggaaggcg gacgccatac 660
tccattcttt aataactata gaccgcagtt ttatgtaaga actaccgacg ttaccggttc 720
tatcactctt ccggaaggaa cagagatggt tatgcctggc gataacttaa agataagcgt 780
tgagcttatc g 791

<210> 1664

<211> 810
<212> DNA
<213> Fonsecaea pedrosoi ATCC 18831

<400> 1664
cgacggacag atgccccaga ccagggagca cttgctcctc gcccgccagg tcggtgtcaa 60
gcgcattgtc gtcttcgtca acaaggtcga tgccattgag gacaaggaga tgttggagct 120
cgtcgagatg gagatgcgtg agcttctctc cagctacggc ttcgagggtg acgacactcc 180
catcgtcatg ggttccgccc tttgcgccat tgagggccgc gagcccgaca ttggtgtcga 240
gaagattgac gagctcctcg agcacgtcga cacctggatc cccacccccg agcgtgacat 300
cgccaagcct ttcctcatgt ccgttgagga cgtcttctcc attcccggcc gtggtaccgt 360
cgcttctggc cgtgtcgagc gtggtgtcct gaagaaggat tccgaagtcg agcttgtcgg 420
caagaacaag aaccccatca agaccaaggt taccgacatc gagaccttca agaagtcttg 480
cgacgagtcc cgcgctggtg acaactccgg tctccttctc cgtggtgtca agcgtgacga 540
tgtcctccgt ggcatggtcg ttgtccagcc cggcaccacc aaggcccaca agaagttcct 600
tgcctccatg tacgtcctca ccaaggagga gggtggccgc cacactggtt tcgccaacaa 660
ctacaagccc cagatgttca tccgtaccgc cgatgaggcc gccactctta cctggcccga 720
gggtaccgag gaggacaaga tggtcatgcc cggtgacaat gtcgagatga tctgcgagat 780
ccacaagccc attgccgtcg agcaaggcca 810

<210> 1665
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1665
cagtacaggt agacttctg 19

<210> 1666
<211> 888
<212> DNA
<213> Microsporum audouinii ATCC 11347

<400> 1666
atgattgcga aacctacttg ctgtggaaga atttggatat tctaacattt ctctaggcct 60
caaaccagag agcatctgct ccttgcccgc caggtcggtg ttcagaagct cgtcgttttc 120
gttaacaagg tcgacgctgt tgaggaccca gagatgttgg aacttgtcga gctagagatg 180
cgtgagctgc tcagccacta tggtttcgag ggtgaggaga ccccaatcat ttttggctct 240
gctctctgcg cccttgaatc tcgacgacca gaattgggtg ttgagaagat cgatgagcta 300
ttgaacgctg tggatacctg gattcccacc ccagagcgtg ccactgataa gcctttcctt 360
atgtccattg aggaagtttt ctccatctct ggtcgtggta ccgtcgtttc cggtcgtgtc 420
gagcgtggta tcctcaagaa ggactctgat gtcgaaattg tgggtggatc tgatacaccc 480
atcaagacga aggtcaccga cattgaaacc ttcaagaagt cttgtgacga atcccgagct 540
ggtgacaact ccggtctact tctccgaggt gtcaagcgtg aggacttgag acgtggaatg 600
gttgttgctg ctcccggatc gaccaaggct cataccgact tcatggtctc cctttatgtt 660
ctgaccgagg ctgagggtgg ccgttccaat ggattcaccc acaagtaccg cccacagatg 720
ttcatccgta ctgccggtat gtaaaccctt tttctaccat tcactttgtt tcaccactga 780
cttgtatact ttaccgcaga cgaagccgca tctttcagct ggcctggaga ggatcaagac 840
aagaaggcca tgcctggtga caatgtcgag atgatttgca agaccctc 888

<210> 1667
<211> 793
<212> DNA
<213> Piedraia hortai ATCC 24292

<400> 1667
atgccgcaga cccgcgagca cttgctgctc gcccgtcagg tcggtgtcca gaagatcgtt 60
gttttcgtca acaaggttga tgctatcgac gacccggaga tgctggagct tgtcgagatg 120
gagatgcgtg aacttctcag cacatacggt ttcgagggtg acgagacccc tgttattatg 180

ggctccgcgc tcatggctct caacaaccag cgccccgaga ttggtcaaca gaagattgat 240
gaactcatgg ccgctgtcga cgagtggatc cctactcccc agcgtgacct cgacaagcct 300
ttcctgatgt ctgttgagga tgtcttctcc attgctggcc gtggtaccgt tgtgtccggc 360
cgtgtggagc gcggtaccct caagcgtgat gaggaagtcg agcttgtcgg caagggtgtc 420
gaccccatca agaccaaggt caccgatatc gagactttca agaagtcctg cgaggaggct 480
caggctggtg acaactctgg tcttctgatc cgtggtgtcc gccgcgagga tgttcgtcgc 540
ggtatggttg tctccaagcc cggcaccgtc aagtctcaca ctcagttcct ggcctcgctt 600
tacgttctca ccaaggagga gggtggtcgc cacactggtt tcggcgagca ctaccgtccc 660
cagctctacc tccgtacctc agacgagtct gtcgatctga ccttccccga gggaactgag 720
gatcaccact ccaagatcgt catgcctggt gacaacatcg agatggtcgt cacgatgact 780
cacgccaacg cta 793

<210> 1668
<211> 891
<212> DNA
<213> Escherichia coli strain K-12 KL1699

<400> 1668
aacatgatca ccggtgctgc gcagatggac ggcgcgatcc tggtagttgc tgcgactgac 60
ggcccgatgc cgcagactcg tgagcacatc ctgctgggtc gtcaggtagg cgttccgtac 120
atcatcgtgt tcctgaacaa atgcgacatg gttgatgacg aagagctgct ggaactggtt 180
gaaatggaag ttcgtgaact tctgtctcag tacgacttcc cgggcgacga cactccgatc 240
gttcgtggtt ctgctctgaa agcgctggaa ggcgacgcag agtgggaagc gaaaatcctg 300
gaactggctg gcttcctgga ttcttacatt ccggaaccag agcgtgcgat tgacaagccg 360
ttcctgctgc cgatcgaaga cgtattctcc atctccggtc gtggtaccgt tgttaccggt 420
cgtgtagaac gcggtatcat caaagttggt gaagaagttg aaatcgttgg tatcaaagag 480
actcagaagt ctacctgtac tggcgttgaa atgttccgca aactgctgga cgaaggccgt 540
gctggtgaga acgtaggtgt tctgctgcgt ggtatcaaac gtgaagaaat cgaacgtggt 600
caggtactgg ctaagccggg caccatcaag ccgcacacca agttcgaatc tgaagtgtac 660
attctgtcca aagatgaagg cggccgtcat actccgttct tcaaaggcta ccgtccgcag 720
ttctacttcc gtactactga cgtgactggt accatcgaac tgccggaagg cgtagagatg 780
gtaatgccgg gcgacaacat caaaatggtt gttaccctga tccacccgat cgcgatggac 840
gacggtctgc gtttcgcaat ccgtgaaggc ggccgtaccg ttggcgcggg c 891

<210> 1669
<211> 805
<212> DNA
<213> Saksenaea vasiformis ATCC 60625

<400> 1669
tcctcgtggt cgccgccacc gacggcccga tgccgcagac caaggagcac gtgctcctgg 60
cccgccaggt cggcgttccg tacatcgtcg tcgccctcaa caaggccgac atggtggacg 120
acgaggagat cctggagctc gtcgagctcg aggtccgtga gctcctctcc gagtacgagt 180
tcccgggcga cgacgttccc gtcgtcaagg tctccgctct gaaggccctc gagggcgaca 240
aggagtgggg caactcggtt ctcgagctca tgaacgccgt cgacacggcg atccccgagc 300
ccgagcgtga cgtcgacaag ccgttcctca tgccgatcga ggacgtcttc acgatcaccg 360
gtcgcggtac ggtcgtcacc ggccgtatcg agcgtggtgt cctgaaggtc aacgagaccg 420
tcgacatcat cggcatcaag accgagaaga ccaccaccac ggtcaccggc atcgagatgt 480
tccggaagct cctcgacgag ggccaggccg gtgagaacgt cggtctgctc ctccgtggca 540
tcaagcgcga ggacgtcgag cgcggccagg tcatcatcaa gccgggctcg gtcacgccgc 600
acacggagtt cgaggcgcag gcctacatcc tgtccaagga cgagggtggc cgccacacgc 660
cgttcttcaa caactaccgc ccgcagttct acttccgtac gacggacgtg accggcgtgg 720
tgaccctccc cgagggcacc gagatggtca tgccgggtga caacaccgag atgaaggtgg 780
agctcatcca gcccgtcgcc atgga 805

<210> 1670
<211> 935
<212> DNA
<213> Trichophyton tonsurans ATCC 56185

<400> 1670
gcttctgacg gtcaaatgta attgaatgcc cgcccagaca gatgaaagga tttgacgttt 60
ctaacatcag tctaggcctc agaccagaga acatttgctc cttgcccgcc aggtcggtgt 120

ccagaagctg gtcgttttcg ttaacaaggt cgatgccgtt gaggacccag agatgttgga 180
gcttgtcgaa cttgaaatgc gtgaactcct cagccactac ggtttcgagg gtgaggagac 240
ccccatcatt tttggctctg ctctctgtgc cctcgagtcc cgtcgacctg agcttggtgt 300
cgagaagatt gacgagctat tgaacgccgt cgacacctgg atccccaccc cagagcgcgc 360
cactgataag cctttcctca tgtccattga ggaagtgttc tctatctctg gtcgtggtac 420
cgtcgtctcc ggtcgtgttg agcgtggtat cctcaagaag gattcggacg tcgaaattgt 480
tggtggctct accacccctа tcaagaccaa ggtcaccgat atcgaaacct tcaagaagtc 540
ctgcgatgaa tctcgagctg gtgacaactc tggtctcctt ctccgaggta tcaagcgtga 600
ggacttgaag cgtggaatgg ttgttgctgc ccccggatcc accaaggctc acaccgactt 660
catggtctcc ctctacgtcc tgactgaggc tgagggtggt cgttccaacg gcttcaccca 720
caagtaccgc ccccaaatgt tcatccgtac tgctggtatg taacccaagt ttccgctatt 780
tactaagtag atcattgcta acttgtattt ccttccgtag acgaagccgc atctttcagc 840
tggcctggag aagaccaaga caagaaggct atgcctggtg acaacgtcga gatgatttgc 900
aagaccctcc accccattgc tgccgaggct ggcca 935

<210> 1671
<211> 772
<212> DNA
<213> Enterobacter aerogenes ATCC 13048

<400> 1671
acgatgccct tgaggtacag aatggtaatg agagcctggt gctggaagtt cagcagcagc 60
tcggcggtgg cgtagtccgt gctatcgcca tgggttcttc cgacggtctg cgtcgtggtc 120
tggaagttaa agaccttgag cacccgatcg aagtcccggt aggtaaagcg actctgggcc 180
gtatcatgaa cgtcctgggt cagccgatcg acatgaaagg cgacatcggc gaagaagaac 240
gttgggctat ccaccgcgcg gcgccttcct atgaagagct gtccagctct caggaactgc 300
tggaaaccgg catcaaagtt atcgacttga tgtgtccgtt cgctaagggc ggtaaagttg 360
gtctgttcgg tggtgcgggt gtaggtaaaa ccgtaaacat gatggagctg atccgtaaca 420
tcgcgatcga gcactccggt tactccgtgt ttgcgggcgt tggtgagcgt actcgtgagg 480
gtaacgactt ctatcacgaa atgaccgact ccaacgttct ggataaagta tccctggttt 540
acggccagat gaacgagccg ccgggaaacc gtctgcgcgt tgcgctgacc ggcctgacca 600
tggctgagaa attccgtgac gaaggtcgtg acgttctgct gttcgtcgat aacatctatc 660
gttacaccct ggccggtact gaagtatctg cactgctggg ccgtatgcct tcagcggtag 720
gttatcagcc gactctggcg gaagagatgg gcgttctgca ggaacgtatc ac 772

<210> 1672
<211> 1401
<212> DNA
<213> Bordetella pertussis strain Tohama 1

<400> 1672
atgagcaacg gaaccatcgt tcagtgcatc ggcgccgtgg tggatattca gttcccccgc 60
gataacatgc ccaagatcta cgaagcgctc accctggtcg acgagggttc ctcgttcgcc 120
gagaagggct tgacgctgga agtgcaacaa cagctgggcg acggcgtggt gcgtaccatc 180
gcgctgggtt ccagcgacgg gctgcgccgc ggcatgcaag tggccggcac cggcgcaccg 240
atctcggtgc ccgtgggcca cggcaccctg ggccgcatca tggacgtgct gggccgtccc 300
atcgacgaag ccggtcccat cgcctccgac gagaagcgcg ccatccacca gcccgcgccc 360
cgtttcgacg agctgtcgcc gtcggtcgag ctgctggaaa ccggcatcaa ggttatcgac 420
ctggtgtgcc cgttcgccaa gggcggcaag gtcggcctgt tcggcggcgc cggcgtgggc 480
aagaccgtca acatgatgga actgatcaac aacatcgcca agcagcacag cggcttgtcg 540
gtgttcgccg gcgtgggcga gcgtacccgc gaaggcaacg acttctacca cgaaatggaa 600
gagtcgaacg ttctggacaa ggtggccatg gtgttcggcc agatgaacga gccccgggc 660
aaccgcctgc gcgtggcgct gaccggcctg accatggccg agaagttccg cgacgaaggc 720
cgtgacatcc tgttcttcgt cgacaacatc taccgctaca ccctggccgg taccgaagtg 780
tcggcgctgc tgggccgtat gccgtcggcg gtgggctacc agcctacgct ggccgaggaa 840
atgggcgtgc tgcaagagcg catcacctcg accaagaccg gttcgatcac ctcgatccag 900
gccgtgtacg tgcctgccga cgacttgacc gacccgtcgc ccgccacgac cttccagcac 960
ttggactcga ccgtcgtgct gtcgcgtgac atcgctgcgc tgggcatcta tcccgccgtg 1020
gacccgctgg attcctccag ccgccagctc gacccgcaag tcgtgggcga agagcactac 1080
caggtggccc gtggcgtgca gcagacgctg cagcgctaca aggaactgcg cgacatcatc 1140
gcgattctgg gcatggacga actgtcgccg gaagacaagc aggccgtggc ccgcgcgcgc 1200
aagatccagc gcttcctgtc gcagcccttc tacgtggccg aagtgttcac cggctcgccg 1260
ggcaagtacg tgtcgctggc cgaaacgatc cgtggcttca agatgatcgt cgacggcgag 1320
tgcgacgcgc tgcccgagca ggcgttctac atggtcggca cgatcgacga ggccttcgag 1380

aaggccaaga aactccaata a 1401

<210> 1673
<211> 797
<212> DNA
<213> Arcanobacterium haemolyticum ATCC 9345

<400> 1673
cagctaccga cggtccaatg gctcagaccc gcgagcacgt tcttcttgct cgccaggttg 60
gcgttccaca gatcatcgtt gctctcaaca aggctgacat ggttgacgac gaggaaatcc 120
tcgaactcgt cgaaatggaa gttcgtgagc ttctctcttc ccaggagtac ccaggtgacg 180
acctcccagt cgtcaagatc tcggcactca aggctctcga aggcgatgcc gaatggagca 240
aggcaatcga agatctcatg gaagctgtcg atacctactt cgacgatcca gtgcgtgacc 300
tcgataagcc attcctcatg ccaatcgaag acgtcttcac catcaccggt cgtggcaccg 360
ttgttaccgg ccgtgcagag cgcggtatgc tcaacttgaa cgaagaagtt gaaatcctcg 420
gtatccgtgc accacagaag acaaccgtta ccggtatcga aatgttccac aagtcgatgg 480
atcacgcaga tgcaggcgaa aactgtggtc ttctcctccg tggcaccaag cgcgaagatg 540
ttgaacgtgg tcaggttgtt gccaagccag gcaccatcac cccacacacc aacttcgaag 600
ctcaggtcta cgtgctcggt aaggaagaag gtggccgtca caacccattc ttctccaact 660
accgtccaca gttctacttc cgtaccacgg atgttaccgg cgtgatcacc cttccagagg 720
gcaccgaaat ggttatgcca ggcgacaaca ccgacatgac agttgagctc atccagccaa 780
tcgctatgga agagggc 797

<210> 1674
<211> 785
<212> DNA
<213> Butyrivibrio fibrisolvens ATCC 19171

<400> 1674
ctgatggtcc tatgccacag acccgtgagc acatcctatt agcacgtcag gtaggcgtac 60
catacatcat cgtattccta aacaagtgcg atatggttga cgacgaggaa ttattagagt 120
tagttgagat ggacgtacgt gatctattaa atcagtacca gttcccaggc gacgacactc 180
caatcatccg tggttcagca ctaggtgcat taaacggcga agagaagtgg aaagaggcaa 240
tctatcagtt agcagacact ctagattcat acattccaga gccaaagcgt gatatcgatg 300
atccattcct attaccaatc gaagatatct tctcaatctc aggtcgtggt actgtagtaa 360
ccggccgtgt agagcgtggt attgtacacg taggtgacga agttgaaatc gttggtattc 420
gtccaaccac caagaccact gtaactggcg ttgaaatgtt ccgtaagtta ctagacgaag 480
gtcgtgcagg tgataacgtt ggtgttctac tacgtggtac caagcgtgat gaggttgagc 540
gtggtcaggt tctagctgct ccaggcacaa tcactccaca caccaagttc actggtcagg 600
tttacgtact aagcaaggat gaaggtggtc gtcacactcc attcttcaag ggctaccgtc 660
cacagttctt cttccgtaca accgatatta ccggttctat cgatctgaaa gagggcgtag 720
agatggtaat gccaggtgat aacaccgaca tgaccgtaac cctaatccac ccagtagcta 780
tggct 785

<210> 1675
<211> 835
<212> DNA
<213> Campylobacter jejuni subsp. doylei ATCC 49349

<400> 1675
tggggcgatc ttggttgttt ctgctgcaga tggtcctatg ccacaaacta gagagcacat 60
tcttctttct cgtcaagtag gcgttccata tattgttgtt tttatgaata aagcagatat 120
ggttgatgat gctgagcttt tagagttagt tgaaatggaa attagagaat tattaagctc 180
ttatgatttc ccaggcgatg atacacctat tatttctggt tctgctttaa aagctcttga 240
agaagctaaa gctggacaag atggtgaatg gtcagcaaaa attatggatc ttatggctgc 300
agttgatagt tatattccaa ctccaactcg tgatactgaa aaagacttct tgatgccaat 360
tgaagacgtt ttctcaattt caggtcgtgg tactgttgtt acaggtagaa ttgaaaaagg 420
tgttgtaaaa gtaggtgata ctatcgaaat cgttggtatt aaagacactc aaacaacaac 480
tgtaacaggt gttgaaatgt tcagaaaaga aatggatcaa ggcgaggcag gagataacgt 540
aggtgttctt cttcgtggta ctaaaaaaga agaagttatt cgcggtatgg ttcttgctaa 600
accaaaatca attactccac acactgactt cgaagctgaa gtttatatct taaataaaga 660
tgaaggtggt agacatactc cattctttaa caactataga ccacagtttt atgtaagaac 720
aactgatgtt acaggttcga ttaaattagc tgatggtgtt gaaatggtta tgccaggtga 780

aaatgtgaga attactgtaa gcttgatcgc tccagtagca cttgaagaag gaact 835

<210> 1676
<211> 812
<212> DNA
<213> Campylobacter lari ATCC 43675

<400> 1676
ttctgcagca gacggcccta tgccacaaac tagagagcat atcttacttt ctcgtcaagt 60
aggtgtacca tatattgttg ttttcatgaa caaagctgat atggttgatg atgcagaatt 120
attagaatta gttgaaatgg aaattagaga attactaagc tcttatgatt tcccaggaga 180
tgatactcca attatttcag gttcagcatt acaagctctt gaagaagcaa aagctggtca 240
agatggtgaa tggtctaaaa aaatcttaga tcttatggct gcagttgatg attatattcc 300
aactccggct cgtgatacag ataaagattt cttgatgcca atcgaagatg ttttctcaat 360
ctcaggtcgt ggaactgttg ttaccggtag aattgaaaaa ggtgttgtaa aagttggtga 420
tactatagaa atcgttggta ttagagacac tcaaacaacc acagttactg gtgttgaaat 480
gtttagaaaa gaaatggatc aaggtgaagc tggtgataat gttggtgtat tacttcgtgg 540
aactaaaaaa gaagatgttg aacgtggtat ggttcttgct aaaccaaaat caatcactcc 600
acatactgat tttgaagcag aagtttatat cttaaataaa gatgaaggtg gtcgtcatac 660
tccattcttt aataattata gaccgcaatt ttatgtaaga acaactgatg ttacaggtgc 720
tattaaactt gcagaaggcg ttgagatggt tatgccaggc gataatgata gaattactgt 780
aagtcttatt gctccagttg cacttgagga ag 812

<210> 1677
<211> 828
<212> DNA
<213> Campylobacter sputorum subsp. sputorum ATCC 35980

<400> 1677
gctattcttg tatgttcagc tgcagatggt ccaatgccac agactagaga gcatattcta 60
ctatcaagac aagttggtgt tccatacata gttgttttct taaataaaga agatatggtt 120
gatgatgctg agcttataga gttggttgaa gttgaggtta gagatttatt aaatgaatat 180
gatttccctg gagatgatac tccaatcgta ataggttctg ctcttaaagc tttagaagaa 240
gcaaaagctg gaacagaggg tgaatggtct gctaaaatta tgaaacttat ggatgctgtt 300
gatagctata tcccaactcc aacaagagat acagataaag atttccttat gccaatcgaa 360
gatatcttct caatttctgg tcgtggtaca gttgtaacag gtagaattga aaaaggtgta 420
gtaaaagttg gcgagactat tgagatagtt ggtattagac ctactcaaac aacaacagtt 480
actggtgttg aaatgtttag aaaagagcta gatcaaggtg aagctggaga taatgttggt 540
atcttgttaa gaggtacaaa aaaagaagat gttgaaagag gtatggtttt atgtaaacca 600
aaatcaatca ctcctcacaa gaaatttgaa ggcgaagttt atattcttac aaaagatgaa 660
ggtggtagac atactccttt ctttagtaac tatagaccac aattttatgt tagaacaaca 720
gatgtaacag gttctatatc tcttcctgag ggaacagaga tggatatgcc tggtgataat 780
gtaaaactta cagttgaact tataaaccca attgctcttg agcaagga 828

<210> 1678
<211> 821
<212> DNA
<213> Campylobacter upsaliensis ATCC 49815

<400> 1678
cgattttggt tgtttctgct gctgatggtc ctatgccaca aactagagag cacattttgc 60
tttctcgtca agtgggtgtt ccttatatcg tagtttttat gaataaggct gatatggttg 120
atgatgcaga gcttttagaa ttggttgaaa tggaaattag agaacttta agctcttatg 180
atttcccggg cgatgacact cctatcattt caggctctgc tcttcaagcc ttagaagagg 240
ctaaggcggg acaagatggc gagtggtcag ctaagatttt agagcttatg aaggcagttg 300
atgagtatat cccaactcct gttcgcgata ctgaaaaaga tttcttgatg cctattgaag 360
atgttttttc aatttctggt cgtggaactg ttgtaacagg tagaattgaa aaaggtgtgg 420
ttaaagtcgg cgatactatt gagatagtag gtatcaaaga tactcaaact acaacagtta 480
caggcgttga gatgtttaga aaagaaatgg atcaaggtga ggctggcgat aatgtcggtg 540
tgcttttaag aggaacaaaa aaagaagatg ttcttcgtgg tatggttctt gcaaagccta 600
gaatctatca ctcctcatac tgattttgaa gcagaagttt atattctaaa taaagatgag 660
ggcggtcgcc atactccttt ctttaacaat tatcgtccgc agttttatgt aagaacgact 720
gatgtaactg gttctattaa attagctgat ggtgttgaga tggttatgcc gggtgaaaat 780

gtaagaatta cagttagcct tatcgctcca gttgcacttg a 821

<210> 1679
<211> 783
<212> DNA
<213> Globicatella sanguis ATCC 51173

<400> 1679
ctgcagctga tggtccaatg cctcaaacac gtgaacatat cttattatca cgtcaagtag 60
gtgttcctta catggttgtc ttcttaaaca aagttgacat ggttgacgat gaagaattat 120
tagaattagt tgaaatggaa gttcgtgatt tattatctga atacgaattc cctggagacg 180
acgttccagt aatcgctggt tcagctttaa aagctttaga aggcgaagaa caatatgaag 240
caaaagtatt agaattaatg gaagctgtag atacatacat tccagaacca gttcgtgata 300
ctgaaaaacc attcatgatg ccagttgaag atgtgttctc aatcacaggt cgtggtacag 360
ttgctactgg acgtgttgaa cgtggacaag ttaaagttgg tgacgaagtt gaaatcgttg 420
gtattgctga agaaattagc aaaacaactg taactggtgt tgaaatgttc cgtaaattat 480
tagattacgc tgaagctgga gataacattg gtgcgttatt acgtggtgtt acacgtgaac 540
aaatccaacg tggtcaagta ttagcaaaac caggaacaat tacacctcat actaaattcg 600
aggcggaagt ttacgtatta tcaaaagaag aaggtggacg tcatactcca ttcttcgcta 660
actaccgtcc tcaattctac ttccgtacaa ctgacgttac aggtgttgta gaattaccag 720
aaggtacaga aatggtaatg cctggagata acgtatcaat gacagttgaa ttaattcacc 780
caa 783

<210> 1680
<211> 823
<212> DNA
<213> Lactobacillus acidophilus ATCC 4356

<400> 1680
gctatcttag ttgttgctgc aactgatggt cctatgccac aaactcgtga acacattttg 60
cttgctcgtc aagttggtgt taactacatc gtagtattct tgaacaagtg cgatttagtt 120
gacgacccag aattgatcga cttggttgaa atggaagttc gtgacttgtt gactgaatac 180
gattaccctg gtgatgatat tccagttgtt cgtggttcag cattaaaggc tttacaaggt 240
gacaaggaag ctcaagacca aatcatgaag ttgatggaca ttgttgatga atacatccca 300
actccagaac gtcaaactga caagccattc ttgatgccag ttgaagacgt attcactatc 360
actggtcgtg gtactgttgc ttcaggtcgt atcgaccgtg gtactgttaa ggtcggtgac 420
gaagttgaaa tcgttggttt ggtagataaa gttcttaagt cagttgttac tggtttggaa 480
atgttccaca agactttgga cttaggtgaa gccggcgata acgttggtgt attgcttcgt 540
ggtgttgacc gtgatcaagt tgttcgtggt caagtattgg ctgcacccgg ctcaatccaa 600
actcataaga agtttaaggc acaagtttat gttttgaaga aggacgaagg tggtcgtcac 660
actccattct tctcagacta ccgtccacaa ttctacttcc acaccactga tattactggt 720
gaaattgaat tgccagaagg tactgaaatg gttatgcctg gtgataacac tgaattcact 780
gttactttga tcaagccagc tgccatcgaa aagggtacta agt 823

<210> 1681
<211> 793
<212> DNA
<213> Leuconostoc mesenteroides subsp. dextranicum ATCC 19255

<400> 1681
gctgcaactg atggtcctat gccacaaaca cgtgaacaca tcttgttggc acgtcaagtt 60
ggtgttgact acttggttgt cttcttgaac aagactgatt tggttgatga tgaagaatta 120
gttgaattgg ttgaaatgga agttcgtgaa ttgttgtcag aatatgactt cccaggtgac 180
gatattcctg tacttaaggg ttcagctttg aaggctttgg aaggtgatcc tgaacaagtt 240
aaggttatcg aagaattgat ggatactgtt gattcataca ttccagaacc agcacgtgaa 300
acagacaagc cattcttgat gcctgtcgaa gacgtcttca caatcactgg tcgtggtaca 360
gttgcttctg gtcgtgttga ccgtggtgta ttgactacag gaactgaaat tgaaatcgtt 420
ggtttgaagg acgaagttca aaagactact gttacaggta tcgaaatgtt ccgtaagact 480
ttggaagaag ctcaagcggg tgataacatt ggtgcattgt tgcgtggtgt tgatcgtagc 540
aacattgaac gtggtcaagt tttggcaaag ccaggttcaa ttaagacaca caagaagttc 600
aaggctgaag tttatgtctt gacaaaggaa gaaggtggtc gtcatacacc attcttcact 660
aactaccgtc cacaattcta cttccacaca actgatgtta caggtgttgt tgaattgcca 720
gccggtgttg aaatggttat gcctggtgac caagtgacat tcgaaatcga attgatctca 780

ccagttgcca tcg 793

<210> 1682
<211> 796
<212> DNA
<213> Prevotella buccalis ATCC 35310

<400> 1682
tatccttgta gttgctgcta ctgatggtcc tatgccacag acacgtgagc acgtgctttt 60
ggctcgtcag gtaaacgttc ctcgtttggt tgtgttcatg aacaagtgtg acttggtaga 120
agacgaagag atgcttgaac tcgttgaaat ggagttgcgc gaacttcttg agcaatacga 180
attcgaagag gatactccaa tcgttcgtgg ttctgcactg ggtgcattga atggtgttga 240
caagtgggtt gacagcgtga tgacgttgat ggacactgtt gacgagtgga ttcaagagcc 300
agagcgtgac cttgacaaac ctttcttgat gccagtagag gacgtgttct ctatcacagg 360
tcgtggtacc gttgtaacag gacgtattga gactggtaag gtaaaggttg gcgacgagat 420
tcagttgctc ggtcttggtg aggacaagaa gtctgttgta acaggcgttg aaatgttccg 480
taagattctt tctgaaggtg aagcaggtga taacgtagga cttttgctcc gcggtatcga 540
taaggatgaa gtaaagcgtg gtatggttgt tgtacaccca ggtgccatca ctcctcacga 600
tcacttcaag gcttccatct atgtattgaa gaaggaagag ggtggacgtc atactccatt 660
cggaaacaag tatcgtcctc agttctatct ccgtacaatg gactgtacag gtgagatcac 720
tttgccagaa ggcgtagaga tggtgatgcc tggtgacaac gtagagattg aggttacctt 780
gatttacaag gttgcc 796

<210> 1683
<211> 800
<212> DNA
<213> Ruminococcus bromii ATCC 27255

<400> 1683
ggttgctgct actgacggcc cgatgcctca gactcgtgag cacgttctgc tcgctcgtca 60
ggtgggtgtg cccgccatcg tcgtcgccct caacaagtgc gacatggttg acgatgagga 120
gctcattgag cttgtcgaga tggaggtccg cgagctgctg acctcgcagg agttcgacgg 180
cgacaactgc cctgtcgttc gcatctccgc cttccaggcc ctccagggtg acgagaagtg 240
gacccagtcg atcctcgacc tcatggacgc cgtggacgag tacatcccgc agcctgagcg 300
cgatctcgac aagcccttcc ttatgccgat cgaggacgtc ttcaccatca ccggccgtgg 360
caccgttgtc accggtcgtg tcgagcgtgg tgtcgtcaag actggcgaag aggtcgagat 420
cgtcggtatc cacgagaaga cccagaagac caccgttacc ggtgtcgaga tgttccgtaa 480
gatcctcgac gagggccgcg ctggtgagaa cgtcggcgtt ctgctccgtg gcaccaagaa 540
ggaggacgtc gttcgcggca tggtcctctc caagcctggt tccaccaccc cccacaccga 600
cttcgagggc caggtctacg tcctcaagaa ggatgagggt ggccgccaca agccgttctt 660
ctcccattac agcccccagt tctacttccg taccacggac gtgactggca ctgttgagct 720
ccccgagggc accgagatgg tcatgcctgg cgacaacacc gacatgactg tgcacctgat 780
tcacccggtt gccatggagg 800

<210> 1684
<211> 545
<212> DNA
<213> Paracoccidioides brasiliensis ATCC 32075

<400> 1684
tgtctttatt caggaactga ttgtatgttt cttctcgttt atatataaca taccttctat 60
atttcatgtg tttctaacga actcatagaa caacattgcc aaggctcacg gtggttactc 120
cgtgttcacc ggtgtcggtg agcgtacccg tgaaggaaac gatctgtacc acgaaatgca 180
ggaaacccgc gtcatccagc tggacggcga gtccaaagtc gccctcgtct tcggccagat 240
gaacgagccc cccggagccc gtgcccgtgt tgccctgacc ggtctgacca tcgctgaata 300
cttccgtgac gaagaaggcc aagatggtac gttcccccat tccatatatg tttcttgtgc 360
gctttgccaà ctaaacacca cctagtgctc ctcttcatcg acaatatctt ccgcttcacc 420
caagccggtt ccgaagtgtc cgccctgcta ggccgcatcc cctccgccgt cggctatcaa 480
cccaccctcg ccgtcgacat gggtggtatg caggagcgca tcacaactac aacaaaaggc 540
tccat 545

<210> 1685

<211> 1020
<212> DNA
<213> Candida norvegica ATCC 36586

<400> 1685
gatatcgctt tatggaaatt cgaaactcca aaattccacg ttacygttat cgatgctcca 60
ggtcacagag atttcatcaa gaatatgatt acyggtacct cccaagctga ttgtgctatt 120
ttaatcattg ctggtggtgt tggtgaattc gaagctggta tctccaaaga tggtcaaacc 180
agagaacacg ctttgttagc tttcacctta ggtgtyaaac aattgattgt tgccgttaac 240
aaaatggact ctgtcaaatg ggatcaatcc cgtttcgaag aaatcgtcaa ggaagcttcc 300
ggtttcatca agaaagttgg ttacaaccca aagactgttc cattcgttcc aatctctggt 360
tggaatggtg acaacatgat tgaagtytcw gctaacgcyc catggtacaa aggttgggaa 420
aaggaaacca aagcyggtgt cgttaaaggt aaaactttat tagaagccat tgatgctatt 480
gaaccacctt caagaccaac tgaaaaacca ttgagattgc cattgcaaga tgtctacaag 540
attggtggta tcggaaccgt accagtcggt aragttgaaa ccggtgtcat taaaccaggt 600
atgattgtta ctttcgcccc agccggtgtt actactgaag tcaaatctgt tgaaatgcat 660
cacgaacaat tagaagctgg ttacccaggt gacaatgttg gtttcaacgt caagaatgtt 720
tcagttaaag aaatcagaag aggtaahgtt gctggtgact ccaagaacga tccaccaaaa 780
ggtgctgaat ctttcaacgc tcaagttatt gtcttgaacc atccaggtca aatctytgct 840
ggttactytc cagttttgga ttgtcacact gcccacattg cttgtaaatt cgatgaaatc 900
ttggaaaaga ttgacagaag atccggtaag aaattggaag aaaatccaaa attcatcaaa 960
tctggtgacg ctgctawtgt caaatttgtt ccatwtaaac cattrtgtgt tgaagctttc 1020

<210> 1686
<211> 929
<212> DNA
<213> Aspergillus nidulans strain WSA-176

<400> 1686
tgctgcttcc gatggtcaaa tgtacgattg atattccttc cagccagtca ggataacagc 60
tgataccagt tgcaaatagg ccccagactc gtgagcactt gttgcttgcc cgtcaggttg 120
gtgtccagaa gatcgttgtc ttcgtcaaca aggttgacgc tgtcgatgac cctgagatgt 180
tggagcttgt tgagctcgag atgcgtgagc tcctcaacac ttacggtttc gagggagagg 240
agacccctat catcttcggt tccgccctgt gcgctctcga aggccgccgc gaggacattg 300
gtactcagcg tattgactcc ctcctcgagg ccgttgacac ttggatccct acccccagc 360
gtgacttgga caagcccttc ctgatgtcca ttgaggaagt tttctccatt ggtggtcgtg 420
gtaccgtcgc ctctggtcgt gtcgagcgtg gtctcctcaa gaaggatacc gaagttgaaa 480
ttcacggtgc tgatggtatt ctgaagacca aggtcaccga cattgagacc ttcaagaaga 540
gctgcgatga gtctcgtgct ggtgacaact ccggtcttct cctccgtggt atccgtcgtg 600
aggatgttcg tcgtggtatg gtcatcgctg cccctggctc catcaaggcc tccaagaagt 660
tcatggtctc catgtacgtc ttgactgagg ctgaaggtgg ccgcaagaac ggcttcggtg 720
ccaactaccg cccccaggct ttcatccgca ctgctggtaa gtttcgaact atttgattca 780
ttgatcacgt ccctaactgt tactttagac gaggcttgcg accttcattt ccctgatgag 840
gccgacaagg accgccacgt catgcccggt gacaacgtcg aaatggtcct caacctcaac 900
aaccccgttg ctgctgaggc tggacagcg 929

<210> 1687
<211> 951
<212> DNA
<213> Aspergillus terreus strain WSA-174

<400> 1687
tgccgcttcc gatggtcaga tgtacgctca agccccagtt tccatataaa cataaacgat 60
ctatcatcag cacaacgctg acttcttcgc ttccaggccc cagacccgtg agcacttgct 120
gttggcccgt caggtcggtg tccagaagat cgtggtcttc gtcaacaagg tcgatgccgt 180
tgatgacccg gagatgttgg agctcgttga gctggaaatg cgcgagctcc tgaccagcta 240
cggattcgag ggtgaagaga cccccatcat cttcggttct gctctctgcg ctcttgaggg 300
ccgccgtcct gagattggta ctgagaagat tgacgagctg atgcacgccg tcgacacctg 360
gatccccacc ccccagcgtg acctcgacaa gcccttcctg atgtccgtcg aggaagtctt 420
ctccattgct ggtcgtggta ccgtcgcttc cggccgtgtc gagcgtggta ttctgaagaa 480
ggatagcgaa gtcgagatca tcggtggtgc tttcgacgcc acgaagacca aggtcactga 540
catcgagacc ttcaagaagt cttgcgacga gtctcgcgct ggtgacaact ctggtctcct 600
cctccgtggt atccgtcgtg aggatgttcg gcgtggtatg gtcattgctg ctcctggcag 660
caccaaggcc cacgacaagt tccttgtctc tatgtacgtc ctcactgagg ctgagggtgg 720

ccgtcgtacc ggattcggta ccaactaccg cccccaggtc ttcatccgta ctgccggtaa 780
gtgttcctgg aagaggcttt gagcctatat aggatctcgg ataatttact aatccaccat 840
atagatgagg ccgctgacct cagcttcccc gacaacgatg actcccgccg tgtcatgccc 900
ggtgacaacg ttgagatggt cctgaagacc caccgccccg tggctgctga g 951

<210> 1688
<211> 823
<212> DNA
<213> Candida norvegica ATCC 36586

<400> 1688
cgttgccgct accgatggtc aaatgcctca aactagagaa catttgctat tggctagaca 60
ggttggtgtt caacacattg tcgtgtttgt taacaaggtt gacactattg atgatccaga 120
aatgttggaa ttggttgaaa tggaaatgag agagttgatt gccacttatg gtttcgatgg 180
tgataacacc ccagttatca tgggttctgc tctatgtgct ttggaaggtc gtgaacctga 240
aatcggtgct caatcaatcg acagattgtt ggaagccgtt gatgaataca ttccaactcc 300
aactagagat ttggaaaaac cattcttgat gggtgttgaa gatgtcttct ccatttctgg 360
tagaggtacc gtctgtaccg gtcgtgttga aagaggtaac ttgaagaaag gtgatgaaat 420
cgaaattgtc ggctacaaca agactccaat caaaaccacc gtcaccggta ttgagatgtt 480
caaaaaggaa ttagaccaag ctatggctgg tgataactgt ggtatcttat tacgtggtgt 540
taagagagat gatatcaaga gaggtatggt tatctctaaa gtcaacaccg tttccgcaca 600
caccaaattc ttggcctctt tatacgtctt gactaaagaa gaaggtggtc gtcattcagg 660
ttttgctgaa aactacagac ctcaattgtt catcagaacc ggtgatgtca ctgttacttt 720
aaccttccca gaagatgctg atcactctca gcaagtctta ccaggtgaca acgttgaaat 780
ggaatgtacc ttggttcatc caactgctct tgaaaccggt caa 823

<210> 1689
<211> 803
<212> DNA
<213> Candida parapsilosis ATCC 201076

<400> 1689
gctgctactg acggtcaaat gcctcaaact agggaacata tgttgttggc gagacaagtt 60
ggtatccaaa acttggttgt ttttgttaac aaagttgata ccattgatga cccagaaatg 120
ttggaattgg ttgaaatgga aatgagggaa ttattgagct cttatgggtt tgatggtgaa 180
aacactccag ttatcatggg atcagccttg tgtgctttag aaggtaaaca accagaaatc 240
ggtgttcaag ccattcaaaa attattggat gctgttgatg aatatattcc aactccagaa 300
agagatgctg accaaccatt tttgatgcca gtggaagatg tgttttctat ttcaggtaga 360
ggaaccgttg tcaccggaag agttgaaaga ggtatgttga agaaaggtga agaagtakaa 420
gtcattggtg aaaactcatt taaggctact tccacgggta ttgagatgtt caaaaaggaa 480
ttggatgccg ctatggccgg tgacaactgt ggtattttgt tgagaggtgt caagagagac 540
gaagtcaaga ggggtatggt tttggccaaa ccaggtacca ccaccccaca ccaaaagttt 600
ttggcttcca tttatatctt gactgctgaa gaaggtggac gtagtacccc tttcagtgaa 660
ggatacaaac cacaatgttt ctttagaact agtgatgtta ccacgacatt tactttccca 720
gaaggtgaag gtgttgacca ctcacaaatg gttatgccag gagrcaatgt tgaaatggtg 780
ggaactttaa tcaagaaagc tcc 803

<210> 1690
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1690
caggtcctgt tgcgactgaa gaa 23

<210> 1691
<211> 25
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1691
cacagataaa cctgagtgtg ctttc 25

<210> 1692
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1692
ggtgagaact gtggtatctt actt 24

<210> 1693
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1693
catttcaacg ccttctttca actg 24

<210> 1694
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1694
aaggcaagga tgacaacggc 20

<210> 1695
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1695
acgatttcca cttcttcctg g 21

<210> 1696
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1696
atgttcctgt agttgctgga 20

<210> 1697
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1697
tttcttcagc aataccaaca ac 22

<210> 1698
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1698
ggaatcaaca gatggtttac aaa 23

<210> 1699
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1699
gcatcttctg ggaaaggtgt 20

<210> 1700
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1700
aagatgcgga aagaagcgaa 20

<210> 1701
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1701
attatggatc agttcttgga tca 23

<210> 1702
<211> 213
<212> DNA
<213> Streptococcus gordonii strain Challis V288

<400> 1702
ttcatagacg ctgagcacgc tttggatcca tcttacgcgg ctgctctagg tgtaaatatt 60
gatgagctgt tgctatctca accagattct ggtgagcaag gtttagaaat tgcaggaaaa 120
ttgattgact ctggggcagt tgatttagtt gtcatcgact ctgttgcagc tcttgtacca 180
cgtgcggaaa tcgatggaga tatcggtgat agc 213

<210> 1703
<211> 692
<212> DNA
<213> Streptococcus mutans strain GS-5

<400> 1703
gggccggaat cttctggtaa gacaactgtc gctcttcatg ctgctgctca ggcgcaaaaa 60
gatggcggta ttgccgcttt cattgatgca gaacatgccc ttgatccagc ctatgctgct 120
gctcttggcg ttaatattga tgagcttttg ctttcacaac cagattcagg agaacagggt 180
cttgaaattg cagggaaatt gattgattct ggcgctgttg atttagttgt tgttgactca 240
gtggcagctt tagtaccacg tgcggagatt gacggagata ttggtaatag tcatgttggc 300
ttacaagcac gcatgatgag tcaagcgatg cgtaaattat cagcttcaat caataaaaca 360
aaaaccattg ctatttttat taatcaattg cgggaaaaag ttggtattat gtttggtaat 420
ccagaaacaa cccctggcgg gcgtgccttg aagttttatt cttctgtgcg tcttgatgtc 480
cgcggcaata ctcaaattaa aggaaccggg gaacaaaaag acagcaatat tggtaaagag 540
accaaaatta aagttgttaa aaataaagtt gctccaccat ttaaggaagc ttttgtagaa 600
attatatatg gtgaaggcat ttctcgtaca ggtgaattag ttaagattgc cagtgatttg 660
ggaattatcc aaaaagctgg agcttggtac tc 692

<210> 1704
<211> 1204
<212> DNA
<213> Streptococcus pneumoniae

<400> 1704
atggcgaaaa aaccaaaaaa attagaagaa atttcaaaaa aatttggggc agaacgtgaa 60
aaggccttga atgacgctct taaattgatt gagaaagact ttggtaaagg atcaatcatg 120
cgtttgggtg aacgtgcgga gcaaaaggtg caagtgatga gctcaggttc tttagctctt 180
gacattgccc ttggctcagg tggttatcct aagggacgta tcatcgaaat ctatggccca 240
gagtcatctg gtaagacaac ggttgccctt catgcagttg cacaagcgca aaaagaaggt 300
gggattgctg cctttatcga tgcggaacat gcccttgatc cagcttatgc tgcggccctt 360
ggtgtcaata ttgacgaatt gctcttgtct caaccagact caggagagca aggtcttgag 420
attgcgggaa aattgattga ctcaggtgca gttgatcttg tcgtagtcga ctcagttgct 480
gcccttgttc ctcgtgcgga aattgatgga gatatcggag atagccatgt tggtttgcag 540
gctcgtatga tgagccaggc catgcgtaaa cttggcgcct ctatcaataa aaccaaaaca 600
attgccattt ttatcaacca attgcgtgaa aaagttggag tgatgtttgg aaatccagaa 660
acaacaccgg gcggacgtgc tttgaaattc tatgcttcag tccgcttgga tgttcgtggt 720
aatacacaaa ttaagggaac tggtgatcaa aaagaaacca atgtcggtaa agaaactaag 780
attaaggttg taaaaaataa ggtagctcca ccgtttaagg aagccgtagt tgaaattatg 840
tacggagaag gaatttctaa gactggtgag cttttgaaga ttgcaagcga tttggatatt 900
atcaaaaaag caggggcttg gtattcttac aaagatgaaa aaattgggca aggttctgag 960
aatgctaaga aatacttggc agagcaccca gaaatctttg atgaaattga taagcaagtc 1020
cgttctaaat ttggcttgat tgatggagaa gaagtttcag aacaagatac tgaaaacaaa 1080
aaagatgagc caaagaaaga agaagcagtg aatgaagaag ttccgcttga cttaggcgat 1140
gaacttgaaa tcgaaattga agaataagct gttaaagcag tggagaaatc cgctactttt 1200
tcga 1204

<210> 1705
<211> 981
<212> DNA
<213> Streptococcus pyogenes strain NZ131

<400> 1705
atgcgttcag gaagtctagc tcttgatatt gcttggatag ctggtggtta tcctaaagga 60
cgtatcatcg aaatctatgg tccagagtct tccggtaaaa cgactgtggc tttacatgct 120
gtagcacaag ctcaaaaaga aggtggaatc gcagccttta tcgatgccga gcatgcgctt 180
gatccagctt atgctgctgc gcttggggtt aatattgatg aacttctctt gtctcaacca 240
gattctggag aacaaggact tgaaattgca ggtaaattga ttgattctgg tgcggttgac 300
ctggttgttg tcgattcagt agcagcttta gtgccacgtg ctgaaattga tggtgatatt 360
ggcgatagcc atgtcggatt gcaagcacgt atgatgagtc aggccatgcg taaattatca 420
gcttctatta ataaaacaaa aactatcgca atctttatca accaattgcg tgaaaaagtt 480
ggtgtgatgt ttggaaatcc tgaaacaaca ccaggtggtc gagctttgaa attctatgct 540
tctgttcggc tggatgtgcg tggaaacaac caaattaaag gaactggtga ccaaaagata 600
gccagcattg gtaaggagac caaaatcaag gttgttaaaa acaaggtcgc tccgccattt 660
aaggtagcag aagttgaaat catgtatggg gaaggtattt ctcgtacagg ggagcttgtg 720
aaaattgctt ctgatttgga cattatccaa aaagcaggtg cttggttctc ttataatggt 780
gagaagattg gccaaggttc tgaaaatgct aagcgttatt tggccgatca tccacaattg 840
tttgatgaaa tcgaccgtaa agtacgtgtt aaatttggtt tgcttgaaga aagcgaagaa 900
gaatctgcta tggcagtagc atcagaagaa accgatgatc ttgctttaga tttagataat 960
ggtattgaaa ttgaagatta a 981

<210> 1706
<211> 312
<212> DNA
<213> Streptococcus salivarus subsp. thermophilus

<400> 1706
gcgtatgcac gagctctagg tgttaatatc gatgagcttc ttttgtcgca gcctgattct 60
ggtgagcaag gtctcgaaat tgcaggtaag ctgattgact ctggtgcagt ggatttagtt 120
gttgttgact cagttgcggc cttcgtacca cgtgcagaaa ttgatggaga tagtggtgac 180
agtcatgtag gacttcaagc gcgtatgatg agtcaagcca tgcgtaaact ttctgcatct 240
attaataaaa caaaaacgat tgctatcttt attaaccagt tgcgtgaaaa agttggtatc 300
atgtttggta ac 312

<210> 1707
<211> 831
<212> DNA
<213> Escherichia coli

<400> 1707
atgaaaaaca caatacatat caacttcgct atttttttaa taattgcaaa tattatctac 60
agcagcgcca gtgcatcaac agatatctct actgttgcat ctccattatt tgaaggaact 120
gaaggttgtt ttttacttta cgatgcatcc acaaacgctg aaattgctca attcaataaa 180
gcaaagtgtg caacgcaaat ggcaccagat tcaactttca agatcgcatt atcacttatg 240
gcatttgatg cggaaataat agatcagaaa accatattca aatgggataa aacccccaaa 300
ggaatggaga tctggaacag caatcataca ccaaagacgt ggatgcaatt ttctgttgtt 360
tgggtttcgc aagaaataac ccaaaaaatt agattaaata aaatcaagaa ttatctcaaa 420
gattttgatt atggaaatca agacttctct ggagataaag aaagaaacaa cggattaaca 480
gaagcatggc tcgaaagtag cttaaaaatt tcaccagaag aacaaattca attcctgcgt 540
aaaattatta atcacaatct cccagttaaa aactcagcca tagaaaacac catagagaac 600
atgtatctac aagatctgga taatagtaca aaactgtatg ggaaaactgg tgcaggattc 660
acagcaaata gaaccttaca aaacggatgg tttgaagggt ttattataag caaatcagga 720
cataaatatg tttttgtgtc cgcacttaca ggaaacttgg ggtcgaattt aacatcaagc 780
ataaaagcca agaaaaatgc gatcaccatt ctaaacacac taaatttata a 831

<210> 1708
<211> 846
<212> DNA
<213> Enterococcus faecalis strain HH22

<400> 1708
ttgaaaaagt taatattttt aattgtaatt gctttagttt taagtgcatg taattcaaac 60
agttcacatg ccaaagagtt aaatgattta gaaaaaaaat ataatgctca tattggtgtt 120
tatgctttag atactaaaag tggtaaggaa gtaaaattta attcagataa gagatttgcc 180
tatgcttcaa cttcaaaagc gataaatagt gctattttgt tagaacaagt accttataat 240
aagttaaata aaaaagtaca tattaacaaa gatgatatag ttgcttattc tcctatttta 300
gaaaaatatg taggaaaaga tatcacttta aaagcactta ttgaggcttc aatgacatat 360
agtgataata cagcaaacaa taaaattata aaagaaatcg gtggaatcaa aaaagttaaa 420
caacgtctaa aagaactagg agataaagta acaaatccag ttagatatga gatagaatta 480
aattactatt caccaaagag caaaaaagat acttcaacac ctgctgcttt cggtaagact 540
ttaaataaac ttatcgcaaa tggaaaatta agcaaagaaa acaaaaaatt cttacttgat 600
ttaatgttaa ataataaaag cggagatact ttaattaaag acggtgttcc aaaagactat 660
aaggttgctg ataaaagtgg tcaagcaata acatatgctt ctagaaatga tgttgctttt 720
gtttatccta agggccaatc tgaacctatt gttttagtca tttttacgaa taaagacaat 780
aaaagtgata agccaaatga taagttgata agtgaaaccg ccaagagtgt aatgaaggaa 840
ttttaa 846

<210> 1709
<211> 555
<212> DNA
<213> Pseudomonas aeruginosa

<400> 1709
atgtccgcga gcacccccc cataactctt cgcctcatga ccgagcgcga cctgccgatg 60
ctccatgact ggctcaaccg gccgcacatc gttgagtggt ggggtggcga cgaagagcga 120
ccgactcttg atgaagtgct ggaacactac ctgcccagag cgatggcgga agagtccgta 180
acaccgtaca tcgcaatgct gggcgaggaa ccgatcggct atgctcagtc gtacgtcgcg 240
ctcggaagcg gtgatggctg gtgggaagat gaaactgatc caggagtgcg aggaatagac 300
cagtctctgg ctgacccgac acagttgaac aaaggcctag gaacaaggct tgtccgcgct 360
ctcgttgaac tactgttctc ggaccccacc gtgacgaaga ttcagaccga cccgactccg 420
aacaaccatc gagccatacg ctgctatgag aaggcaggat tcgtgcggga gaagatcatc 480
accacgcctg acgggccggc ggtttacatg gttcaaacac gacaagcctt cgagagaaag 540
cgcggtgttg cctaa 555

<210> 1710
<211> 732
<212> DNA
<213> Staphylococcus aureus

<400> 1710
atgaaccaga aaaaccctaa agacacgcaa aattttatta cttctaaaaa gcatgtaaaa 60
gaaatattga atcacacgaa tatcagtaaa caagacaacg taatagaaat cggatcagga 120
aaaggacatt ttaccaaaga gctagtcaaa atgagtcgat cagttactgc tatagaaatt 180
gatggaggct tatgtcaagt gactaaagaa gcggtaaacc cctctgagaa tataaaagtg 240
attcaaacgg atattctaaa attttccttc ccaaaacata taaactataa gatatatggt 300
aatattcctt ataacatcag tacggatatt gtcaaaagaa ttacctttga aagtcaggct 360
aaatatagct atcttatcgt tgagaaggga tttgcgaaaa gattgcaaaa tctgcaacga 420
gctttgggtt tactattaat ggtggagatg gatataaaaa tgctcaaaaa agtaccacca 480
ctatattttc atcctaagcc aagtgtagac tctgtattga ttgttcttga acgacatcaa 540
ccattgattt caaagaagga ctacaaaaag tatcgatctt ttgtttataa gtgggtaaac 600
cgtgaatatc gtgttctttt cactaaaaac caattccgac aggctttgaa gcatgcaaat 660
gtcactaata ttaataaact atcgaaggaa caatttcttt ctattttcaa tagttacaaa 720
ttgtttcact aa 732

<210> 1711
<211> 738
<212> DNA
<213> Escherichia coli strain BM2570

<400> 1711
atgaacaaaa atataaaata ttctcaaaac tttttaacga gtgaaaaagt actcaaccaa 60
ataataaaac aattgaattt aaaagaaacc gataccgttt acgaaattgg aacaggtaaa 120
gggcatttaa cgacgaaact ggctaaaata agtaaacagg taacgtctat tgaattagac 180

agtcatctat tcaacttatc gtcagaaaaa ttaaaatcga atactcgtgt cactttaatt 240
caccaagata ttctacagtt tcaattccct aacaaacaga ggtataaaat tgttgggaat 300
attccttacc atttaagcac acaaattatt aaaaaagtgg tttttgaaag ccatgcgtct 360
gacatctatc tgattgttga agaaggattc tacaagcgta ccttggatat tcaccgaaca 420
ctagggttgc tcttgcacac tcaagtctcg attcagcaat tgcttaagct gccagcggaa 480
tgctttcatc ctaaaccaag agtaaacagt gtcttaataa aacttacccg ccataccaca 540
gatgttccag ataaatattg gaagctatat acgtactttg tttcaaaatg ggtcaatcga 600
gaatatcgtc aactgtttac taaaaatcag tttcatcaag caatgaaaca cgccaaagta 660
aacaatttaa gtaccgttac ttatgagcaa gtattgtcta tttttaatag ttatctatta 720
tttaacggga ggaaataa 738

<210> 1712
<211> 735
<212> DNA
<213> Staphylococcus aureus strain RN451

<400> 1712
atgaacgaga aaaatataaa acacagtcaa aactttatta cttcaaaaca taatatagat 60
aaaataatga caaatataag attaaatgaa catgataata tctttgaaat cggctcagga 120
aaagggcatt ttacccttga attagtacag aggtgtaatt tcgtaactgc cattgaaata 180
gaccataaat tatgcaaaac tacagaaaat aaacttgttg atcacgataa tttccaagtt 240
ttaaacaagg atatattgca gtttaaattt cctaaaaacc aatcctataa aatatttggt 300
aatatacctt ataacataag tacggatata atacgcaaaa ttgtttttga tagtatagct 360
gatgagattt atttaatcgt ggaatacggg tttgctaaaa gattattaaa tacaaaacgc 420
tcattggcat tatttttaat ggcagaagtt gatatttcta tattaagtat ggttccaaga 480
gaatattttc atcctaaacc tagagtgaat agctcactta tcagattaaa tagaaaaaaa 540
tcaagaatat cacacaaaga taaacagaag tataattatt tcgttatgaa atgggttaac 600
aaagaataca agaaaatatt tacaaaaaat caatttaaca attccttaaa acatgcagga 660
attgacgatt taaacaatat tagctttgaa caattcttat ctcttttcaa tagctataaa 720
ttatttaata agtaa 735

<210> 1713
<211> 1029
<212> DNA
<213> Enterococcus faecalis strain V583

<400> 1713
atgaataaaa taaaagtcgc aattatcttc ggcggttgct cggaggaaca tgatgtgtcg 60
gtaaaatccg caatagaaat tgctgcgaac attaatactg aaaaattcga tccgcactac 120
atcggaatta caaaaaacgg cgtatggaag ctatgcaaga agccatgtac ggaatgggaa 180
gccgatagtc tccccgccat attctccccg gataggaaaa cgcatggtct gcttgtcatg 240
aaagaaagag aatacgaaac tcggcgtatt gacgtggctt tcccggtttt gcatggcaaa 300
tgcggggagg atggtgcgat acagggtctg tttgaattgt ctggtatccc ctatgtaggc 360
tgcgatattc aaagctccgc agcttgcatg gacaaatcac tggcctacat tcttacaaaa 420
aatgcgggca tcgccgtccc cgaatttcaa atgattgaaa aaggtgacaa accggaggcg 480
aggacgctta cctaccctgt ctttgtgaag ccggcacggt caggttcgtc ctttggcgta 540
accaaagtaa acagtacgga agaactaaac gctgcgatag aagcagcagg acaatatgat 600
ggaaaaatct taattgagca agcgatttcg ggctgtgagg tcggctgcgc ggtcatggga 660
aacgaggatg atttgattgt cggcgaagtg gatcaaatcc ggttgagcca cggtatcttc 720
cgcatccatc aggaaaacga gccggaaaaa ggctcagaga atgcgatgat tatcgttcca 780
gcagacattc cggtcgagga acgaaatcgg gtgcaagaaa cggcaaagaa agtatatcgg 840
gtgcttggat gcagagggct tgctcgtgtt gatctttttt tgcaggagga tggcggcatc 900
gttctaaacg aggtcaatac cctgcccggt tttacatcgt acagccgcta tccacgcatg 960
gcggctgccg caggaatcac gcttcccgca ctaattgaca gcctgattac attggcgata 1020
gagaggtga 1029

<210> 1714
<211> 818
<212> DNA
<213> Campylobacter jejuni subsp. jejuni ATCC 33292

<400> 1714
gcacaggttc agttgggctt gatcttgctt taggtatagg cggtgttcca aaaggaagaa 60

ttatagaaat ttatggrcct gaaagttcag gtaaaaccac tctaactcta cacattatcg 120
cagaatgcca aaaagcaggt ggrgtttgtg cttttatcga tgcagaacat gcrcttgatg 180
traaatatgc taaaaatttg ggtgtaaata cagatgattt gtatgtttct cagcctgatt 240
ttggagarca agccttagaa attgtagaaa ctatagcaag aagtggcgca gtagatctta 300
tcgtagtaga tagcgttgca gcgcttaccc caaaagcaga aattgaaggc gatatgggtg 360
atcaacatgt aggacttcaa gcaagactta tgtctcaagc tctaagaaaa cttacaggta 420
tagttcataa aatgaatacc acagtaattt tyatcaacca aattcgtatg aaaatcggtg 480
ctatgggtta tggtactcct gaaaccacaa caggtggaaa tgcattaaaa ttttatgctt 540
ctgtgcgttt agatgttaga aaagtagcaa ccttaaaaca aaacgaagaa cctataggaa 600
accgcgttaa agtaaaagta gttaaaaata aagttgctcc tccattcaga caagctgaat 660
ttgatgtgat gtttggagag ggtttaagcc gtgaaggtga attgatcgat tatggtgtaa 720
aacttgatat cgtagataaa agtggtgcgt ggttttctta taaagataaa aaacttggac 780
aaggtagaga aaattcaaaa gctttcttaa aagaaaac 818

<210> 1715
<211> 809
<212> DNA
<213> Abiotrophia adiacens ATCC 49175

<400> 1715
tggtgctatc ttagtagtat ctgcagctga tggtccaatg cctcaaacac gtgaacacat 60
cttattatca cgtcaagtag gtgttcctta catcgttgta ttcttaaaca aagttgacat 120
ggttgacgat gaagaattat tagaattagt agaaatggaa gttcgtgact tattatcaga 180
atacgatttc ccaggcgatg acactccagt tgttgcaggt tctgctttac gcgctttaga 240
aggcgacgct tcatacraag aaaaaatctt agaattaatg gctgctgttg acgaatacat 300
tccaactcca gaacgygacg ttgacaaacc attcatgatg ccagttgaag acgtgttctc 360
aatcacaggt cgtggtactg ttgctacagg tcgtgttgaa cgtggacaag ttcgtgttgg 420
tgacgaagtt gaaatcgttg gtatttcaga agaaacttca aaaacaactg taactggtgt 480
tgaaatgttc cgtaaattgt tagactacgc tgaagcaggg gataacattg gtacattatt 540
acgtggtgtt acacgtgaca acatcgaacg tggacaagtt cttgctaaac caggaacaat 600
cactccacat actaaattca aagctgaagt ttacgtatta actaaagaag aaggtggacg 660
tcatactcca ttcttctcta actaccgtcc tcaattctac ttccgtacaa cagacatcac 720
tggtgtttgt gtgttaccag aaggcgttga aatggtaatg cctggtgata acgtaactat 780
ggaagttgaa ttaattcacc cagtagcga 809

<210> 1716
<211> 817
<212> DNA
<213> Abiotrophia defectiva ATCC 49176

<400> 1716
cggcgcgatc ctcgttgtat ctgctgctga cggcccaatg ccacaaactc gtgaacacat 60
cctcttgtct cgtcaagttg gtgttcctta catcgtagta ttcttgaaca aagttgacat 120
ggttgacgac gaagaattgc tcgaattagt tgaaatggaa gttcgtgacc tcttgtctga 180
atacgacttc ccaggcgacg acactccagt tatcgctggt tcagctttga aagctttaga 240
aggcgacgct aactacgaag ctaaagtttt agaattgatg gaacaagttg atgcttacat 300
tccagaacca gaacgtgaca ctgacaagcc attcatgatg ccagtcgaag acgtattctc 360
tatcactggt cgtggtactg ttgcaactgg tcgtgttgaa cgtggtcaag ttcgcgttgg 420
tgacgaagtt gaaatcgttg gtatcgaaga agaaacttct aagactaccg ttaccggtgt 480
tgaaatgttc cgtaagttat tggattacgc tgaagctggg gacaacgttg gtaccttgtt 540
acgtggtgta actcgtgacc aaatccaacg tggtcaagta ttatctaaac caggttcaat 600
cactccgyac actaagttcg aagctgaagt gtacgtattg tctaaagaag aaggtggtcg 660
tcacactcca ttcttctcta actaccgtcc acaattctac ttccgtacaa ctgacgtaac 720
tggtgttgtt actttaccag aaggtactga aatggttatg ccaggcgaca acgtacaaat 780
ggttgttgaa ttgatccacc caatcgcgat cgaagaa 817

<210> 1717
<211> 814
<212> DNA
<213> Corynebacterium accolens ATCC 49725

<400> 1717
cggcgctatc ctggttgttg ctgcaaccga tggcccgatg ccgcagaccc gcgagcacgt 60

tctgcttgct cgccaggttg gcgttcctta catcctcgtt gcactgaaca agtgcgacat 120
ggttgatgat gaggaaatca tcgagctcgt ggagatggag atctccgagc tgctcgcaga 180
gcaggactac gatgaggaag ctcctatcgt tcacatctcc gctctgaagg cactcgaggg 240
tgacgagaag tgggtacagt ccatcgttga cctgatggat gcctgcgaca actccatccc 300
tgatccggag cgcgctaccg atcagccgtt cttgatgcct atcgaggaca tcttcaccat 360
taccggccgc ggtaccgttg ttaccggccg tgttgagcgt ggtcgtctga acgtcaacga 420
ggacgttgag atcatcggta tccaggagaa gtcccagaac accaccgtta ccggtatcga 480
gatgttccgc aagatgatgg actacaccga ggctggcgac aactgtggtc tgcttctgcg 540
tggtaccaag cgtgaggacg ttgagcgtgg ccaggttgtt atcaagccgg gcgcttacac 600
ccctcacacc aagttcgagg gttccgtcta cgtcctgaag aaggaagagg gcggccgcca 660
caccccgytc atgaacaact accgtcctca gttctacttc cgcaccaccg acgttaccgg 720
tgttgtgaac ctgcctgagg gcaccgagat ggttatgcct ggcgacaacg ttgagatgtc 780
tgttgagctc atccagcctg ttgctatgga cgag 814

<210> 1718
<211> 814
<212> DNA
<213> Corynebacterium genitalium ATCC 33031

<400> 1718
cggcgccatc ctggttgttg ctgcaaccga tggcccgatg ccgcagaccc gtgagcacgt 60
tctgctggct cgccaggttg gcgttccgta catcctagtt gcactgaaca agtgcgacat 120
ggttgatgat gaggagctgc tggagctcgt cgagatggag gtccgcgagc tgctggctga 180
gcaggacttc gacgaggaag cacctgttgt tcacatctcc gcactgaagg ccctggaggg 240
cgacgagaag tgggctaagc agatcctgga gctcatggag gcttgcgaca actccatccc 300
ggatccggag cgcgagaccg acaagccgtt cctgatgccg gttgrggaca tcttcaccat 360
taccggccgc ggtaccgttg ttaccggccg tgttgagcgt ggcgtcctga acctgaacga 420
cgaggtcgag atcctgggca tccgcgagaa gtccaccaag accaccgtta cctccatcga 480
gatgttcaac aagctgctgg acaccgcaga ggctggcgac aacgccgcac tgctgctgcg 540
tggcctgaag cgcgaagatg ttgagcgtgg tcagatcgtt gctaagccgg gcgagtacac 600
cccgcacacc gagttcgagg gctccgtcta cgttctgtcc aaggacgagg gtggccgcca 660
caccccgttc ttcgacaact accgtccgca gttctatttc cgcaccaccg acgttaccgg 720
tgttgtgaag ctgccggagg gcaccgagat ggttatgccg ggcgacaacg ttgacatgtc 780
cgtcaccctg atccagccgg ttgctatgga cgag 814

<210> 1719
<211> 814
<212> DNA
<213> Corynebacterium jeikeium ATCC 43216

<400> 1719
cggcgccatc ctggttgttg ccgcaaccga tggcccgatg ccgcagaccc gcgagcacgt 60
tctgctggcy cgccaggttg gcgttccgta catcctggtt gcactgaaca agtgtgacat 120
ggttgacgat gaggagctgc tggagctcgt cgagatggag gtccgcgagc tgctggctga 180
gcaggacttc gacgaggaag ctccggttgt tcacatctcc gcactgaagg ccctggaggg 240
cgacgagaag tgggctaacc agattctcga gctgatgcag gcttgcgacg agtctatccc 300
ggatccggag cgcgagaccg acaagccgtt cctgatgccg gttgwggaca tcttcaccat 360
taccggtcgc ggtaccgttg ttaccggccg tgttgagcgt ggcatcctga acctgaacga 420
cgaggttgag atcctgggta tccgcgagaa gtcccagaag accaccgtta cctccatcga 480
gatgttcaac aagctgctgg acaccgcaga ggctggcrac aacgctgcac tgctgctgcg 540
tggtctgaag cgcgaggacg ttgagcgtgg ccagatcatc gctaagccgg gcgagtacac 600
cccgcacacc gagttcgagg gctccgtcta cgttctgtcc aaggacgagg gcggccgcca 660
caccccgttc ttcgacaact accgtccgca gttctacttc cgcaccaccg acgttaccgg 720
tgttgtgaag ctgcctgagg gcaccgagat ggttatgccg ggcgacaacg tygacatgtc 780
cgtcaccctg atccagccgg ttgctatgga cgag 814

<210> 1720
<211> 748
<212> DNA
<213> Corynebacterium pseudodiphtheriticum ATCC 10700

<400> 1720
cggcgctatc ttggttgttg cagctaccga cggcccaatg ccacagactc gcgagcacgt 60

tctgctggct cgccaggttg gcgttcctta catcctggtt gcactaaaca agtgcgacat 120
ggttgacgac gaggaaatcc tcgagctcgt cgagatggag atccgcgaat tgctggctga 180
ccaggaattc gacgaagaag ctccaatcgt tcacatctcc gcagtcggcg ccttggaagg 240
cgaagagagg tgggttaacg ccatcgttga actgatggat gcttgtgacg agtcgatccc 300
tgatccagac cgtgctaccg acaagccatt cctgatgcct atcgaggaca tcttcaccat 360
taccggtcgt ggcaccgttg ttacgggtcg tgttgagcgt ggttccctga aggtcaacga 420
agaagtcgag atcatcggca tcaaggaaaa gtcccagaag accaccatca ccggtatcga 480
aatgttccgc aagatgctgg actacaccga ggccggcgac aacgctggtc tgctgcttcg 540
cggtaccaag cgtgaagacg ttgagcgtgg acaggttatc gttgctccag gtgcttacag 600
cacccacaag aagttcgaag gttccgtcta cgttctttcc aaggacgagg gcggccgcca 660
caccccgttc ttcgacaact accgtcctca gttctacttc cgcaccaccg acgttaccgg 720
tgttgttacc ctgcctgagg gcaccgag 748

<210> 1721
<211> 813
<212> DNA
<213> Corynebacterium striatum ATCC 6940

<400> 1721
ggcgctatct tggttgttgc tgcaaccgat ggcccgrtgc cgcagacccg cgagcacgtt 60
cttctggctc gccaggttgg cgttccttac atcctcgttg cactgaacaa gtgcgacatg 120
gttgacgacg aggaaattat cgagctcgtc gagatggaga tccgcgaact gctcgcagag 180
caggactacg atgaggaagc tccgatcgtt cacatctctg ctctgaaggc tcttgagggc 240
grcgagaagt gggtacaggc tatcgttgac ctgatgcagg cttgcgatga ctccatcccg 300
gatccggagc gcgagctgga caagccgttc ctgatgccaa tcgaggacat cttcaccatc 360
accggccgcg gtaccgttgt tactggccgt gttgagcgtg gctccctgaa cgtcaacgag 420
gacgttgaga tcatcggtat ccaggacarg tccatctcca ccaccgttac cggtatcgag 480
atgytccgca agatgatgga ctacaccgag gctggcgaca actgtggtct gcttctgcgt 540
ggtaccaagc gtgaagaggt tgagcgcggc caggttgtta ttaagccggg cgcttacacc 600
cctcacaccc agttcgaggg ttccgtctac gtcctgaaga aggaagaggg cggccgccac 660
accccgttca tggacaacta ccgtccgcag ttctacttcc gcaccaccga cgttaccggc 720
gtcatcaagc tgcctgaggg caccgagatg gttatgcctg gcgacaacgt cgagatgtcy 780
gtcgagctga tccagccggt cgctatggac gag 813

<210> 1722
<211> 817
<212> DNA
<213> Enterococcus avium ATCC 14025

<400> 1722
cggagctatc ttagtagtat ctgctgctga tggccctatg cctcaaactc gtgaacacat 60
cttgttatct cgtaacgttg gtgttcctta catcgttgta ttcttaaaca aaatggatat 120
ggttgacgat gaagaattac ttgaattagt tgaaatggaa gttcgtgact tattaactga 180
atacgacttc ccaggcgacg acactccagt tatcgcaggt tcagcgttga aagctttaga 240
aggcgacgct tcatacgaag aaaaaatctt agaattaatg gctgctgttg acgaatatat 300
cccaacacca gttcgtgata ctgacaaacc attcatgatg ccagtcgaag acgtattctc 360
aatcactggt cgtggtactg ttgcaactgg tcgtgttgaa cgtggacaag ttcgcgttgg 420
tgacgaagtt gaaatcgtag gtatcgctga cgaaactgct aaaacaactg ttacaggtgt 480
tgaaatgttc cgtaaattgt tagactacgc tgaagcaggt gacaacatcg gtgctttgtt 540
acgtggtgtt gcacgtgaag atatccaacg tggacaagta ttggctaaac cagcttcaat 600
cactccacat acaaaattct ctgcagaagt ttatgttcta actaaagaag aaggtggacg 660
tcatactcca ttcttcacta actaccgtcc tcagttctac ttccgtacaa ctgacgtaac 720
tggtgtagtt gatctaccag aaggtactga aatggtwatg cctggggata acgtaactat 780
ggaagttgaa ttgatycacc caatygcggt agaagac 817

<210> 1723
<211> 823
<212> DNA
<213> Gardnerella vaginalis ATCC 14018

<400> 1723
tggcgcaatc ctcgtggttg ctgctaccga cggtccaatg gctcagaccc gtgaacacgt 60
cttgcttgct aagcaggtcg gcgttccaaa aattcttgtt gctttgaaca agtgcgatat 120

ggttgacgac gaagagctta tcgatctcgt tgaagaagag gtccgtgacc tcctcgaaga 180
aaacggcttc gatcgcgatt gcccagtcyt ccgtacttcc gcttacggcg ctttgcatga 240
tgacgctcca gaccacgaca agtgggtaga gaccgtcaag gaactcatga aggctgttga 300
cgagtacatc ccaaccccaa ctcacgatct tgacaagcca ttcttgatgc caatcgaaga 360
tgtgttcacc atctccggtc gtggtyccgt tgtcaccggt cgtgttgagc gtggtaagct 420
cccaatcaac accccagttg agatcgttgg tttgcgcgat acccagacca ccaccgtcac 480
ctctatcgag accttccaca agcagatgga tgaggcagag gctggcgata acactggtct 540
tcttctccgc ggtatcaacc gtaccgacgt tgagcgtggt caggttgtgg ctgctccagg 600
ttctgtgact ccacacacca agttcgaagg cgaagtttac gtcttgacca aggacgaagg 660
tggccgtcac tcgccattct tctccaacta ccgtccacag ttctacttcc gtaccaccga 720
tgttactggc gttatcacct tgccagacgg catcgaaatg gttcagccag gcgatcacgc 780
aaccttcact gttgagttga tccaggctat cgcaatggaa gag 823

<210> 1724
<211> 817
<212> DNA
<213> Listeria innocua ATCC 33090

<400> 1724
cggagctatc ttagtagtat ctgctgctga tggcccaatg ccacaaactc gtgaacatat 60
cttactttca cgtcaagttg gtgttccata catcgttgta ttcatgaaca aatgtgacat 120
ggttgacgat gaagaattac tagaattagt tgaaatggaa attcgtgatc tattaactga 180
atatgaattc cctggcgatg acattcctgt aatcaaaggt tcagctctta aagcacttca 240
aggtgaagct gactgggaag ctaaaattga cgagttaatg gaagctgtag attcttacat 300
tccaactcca gaacgtgata ctgacaaacc attcatgatg ccagttgagg atgtattctc 360
aatcactggt cgtggaacag ttgcaactgg acgtgttgaa cgtggacaag ttaaagttgg 420
tgacgaagta gaagttatcg gtattgaaga agaaagcaaa aaagtagtag taactggagt 480
agaaatgttc cgtaaattac tagactacgc tgaagctggc gacaacattg gcgcacttct 540
acgtggtgtt gctcgtgaag atatccaacg tggtcaagta ttagctaaac caggttcgat 600
tactccacac actaacttca aagctgaaac ttatgtttta actaaagaag aaggtggacg 660
tcacactcca ttcttcaaca actaccgccc acaattctat ttccgtacta ctgacgtaac 720
tggtattgtt acacttccag aaggtactga aatggtaatg cctggtgata acattgagct 780
tgcagttgaa ctaattgcac caatcgctat cgaagac 817

<210> 1725
<211> 818
<212> DNA
<213> Listeria ivanovii ATCC 19119

<400> 1725
cggagctatc ttagtagtat ctgctgctga tggtccaatg ccacaaactc gtgaacatat 60
tcttactttc acgtcaagtt ggtgttccat acatcgttgt attcatgaac aaatgtgaca 120
tggttgacga tgaagaatta cttgaattag ttgaaatgga aattcgtgat ctattaactg 180
aatatgaatt ccctggcgac gacattcctg taatcaaagg ttcagctctt aaagcacttc 240
aaggtgaagc tgattgggaa gctaaaattg acgagttaat ggaagctgta gattcttaca 300
ttccaactcc agaacgtgat actgacaaac cattcatgat gccagttgag gatgtattct 360
caatcactgg tcgtggaaca gttgcaactg gacgtgttga acgtggacaa gttaaagttg 420
gtgacgaagt agaagttatc ggtattgaag aagaaagcaa aaaagtagta gtaactggag 480
tagaaatgtt ccgtaaatta ctagactacg ctgaagctgg cgacaacatt ggcgcacttc 540
tacgtggtgt tgctcgtgaa gatatccaac gtggtcaagt attagctaaa ccaggttcga 600
ttactccaca tactaacttc aaagctgaaa cttatgtttt aactaaagaa gaaggtggac 660
gtcatactcc attcttcaac aactaccgcc cacaattcta tttccgtact actgacgtaa 720
ctggtattgt tacacttcca gaaggtactg aaatggtaat gcctggtgat aacattgagc 780
ttgcagttga actaattgca ccaatcgcta tcgaagac 818

<210> 1726
<211> 817
<212> DNA
<213> Listeria monocytogenes strain LSPQ 5093202

<400> 1726
cggagctatc ttagtagtat ctgctgctga tggcccaatg ccacaaactc gtgaacatat 60
cttactttca cgtcaagttg gtgttccata catcgttgta ttcatgaaca aatgtgacat 120

ggttgacgat gaagaattac tagaattagt tgaaatggaa attcgtgatc tattaactga 180
atatgaattc cctggcgatg acattcctgt aatcaaaggt tcagctctta aagcacttca 240
aggtgaagct gactgggaag ctaaaattga cgagttaatg gaagctgtag attcttacat 300
tccaactccw gaacgtgata ctgacaaacc attcatgatg ccagttgagg atgtattctc 360
aatcactggt cgtggaacag ttgcaactgg acgtgttgaa cgtggacaag ttaaagttgg 420
tgacgaagta gaagttatcg gtatcgaaga agaaagcaaa aaagtagtag taactggagt 480
agaaatgttc cgtaaattac tagactacgc tgaagctggc gacaacattg gcgcacttct 540
acgtggtgtt gctcgtgaag atatccaacr tggtcaagta ttagctaaac caggttcgat 600
tactccacac actaacttca aagctgaaac ttatgtttta actaaagaag aaggtggacg 660
tcacactcca ttcttcaaca actaccgccc acaattctat ttccgtacta ctgacgtaac 720
tggtattgtt acacttccag aaggtactga aatggtaayg cctggtgata acattgagct 780
tgcagttgaa ctaattgcac caatcgctat cgaagac 817

<210> 1727
<211> 817
<212> DNA
<213> Listeria seeligeri ATCC 35967

<400> 1727
cggagctatc ttagtagtat ctgctgctga tggcccaatg ccacaaactc gtgaacatat 60
cttactttca cgtcaagttg gtgttccata catcgttgta ttcatgaaca aatgtgacat 120
ggttgacgat gaagaattac ttgaattagt tgaaatggaa attcgtgatc tattaactga 180
atatgaattc cctggtgatg acattcctgt aatcaaaggt tcagctctta aagcacttca 240
aggtgaagct gactgggaag ctaaaattga cgagttaatg gaagctgtag attcttacat 300
tccaactcca gaacgtgata ctgacaaacc attcatgatg ccagttgagg atgtattctc 360
aatcactggt cgtggaactg ttgcaactgg acgtgttgaa cgtggacaag ttaaagttgg 420
tgacgaagta gaagttatcg gtattgaaga agaaagcaaa aaagtaatag taactggagt 480
agaaatgttc cgtaaattac tagactacgc tgaagctggc gacaacattg gcgcacttct 540
acgtggtgtt gctcgtgaag atatccaacg tggtcaagta ttagctaaac caggttcgat 600
tactccacat actaacttca aagctgaaac ttatgtttta actaaagaag aaggtggacg 660
tcacactcca ttcttcaaca actaccgccc acaattctat ttccgtacta ctgacgtaac 720
tggtattgtt acacttccag aaggtactga aatggtaatg cctggtgata acattgagct 780
tgcagttgaa ctaattgcac caatcgctat cgaagac 817

<210> 1728
<211> 814
<212> DNA
<213> Staphylococcus aureus ATCC 25923

<400> 1728
cggtggtatc ttagtagtat ctgctgctga cggtccaatg ccacaaactc gtgaacacat 60
tcttttatca cgtaacgttg gtgtaccagc attagtagta ttcttaaaca aagttgacat 120
ggttgacgat gaagaattat tagaattagt agaaatggaa gttcgtgact tattaagcga 180
atatgacttc ccaggtgacg atgtacctgt aatcgctggt tcagcattar aagctttaga 240
aggcgatgct caatacgaag aaaaaatctt agaattartg gaagctgtag atacttacat 300
tccaactcca gaacgtgatt ctgacaaacc attcatgatg ccagttgagg acgtattctc 360
aatcactggt cgtggtactg ttgctacagg ccgtgttgaa cgtggtcaaa tcaaagttgg 420
tgaagaagtt gaaatcatcg gtttacatga cacatctaaa acaactgtta caggtgttga 480
aatgttccgt aaattattag actacgctga agctggtgac aacattggtg cattattacg 540
tggtgttgct cgtgaagacg tacaacgtgg tcaagtatta gctgctcctg gttcaattac 600
accacatact gaattcaaag cagaagtata cgtattatca aaagacgaag gtggacgtca 660
cactccattc ttctcaaact atcgtccaca attctatttc cgtactactg acgtaactgg 720
tgttgttcac ttaccagaag gtactgaaat ggtaatgcct ggtgataacg ttgaaatgac 780
agtagaatta atcgctccaa tcgcgattga agac 814

<210> 1729
<211> 817
<212> DNA
<213> Staphylococcus saprophyticus ATCC 15305

<400> 1729
cggagctatc ttagtagtat ctgctgctga tggcccaatg ccacaaactc gtgaacacat 60
tcttttatca cgtracgttg gtgytccagc attagttgta ttcttaaaca aagttgacat 120

ggttgacgay gaagaattat tagaattrgt agaaatggaa gttcgtgrct tattaagcga 180
atatgacttc ccaggtgacg atgtacctgt aatctctggt tctgcattaa aagctttaga 240
aggcgacgct gactatgagc aaaaaatctt agacttaatg caagctgttg atgactycat 300
tccaacacca gaacgtgatt ctgacaaacc attcatgatg ccagttgagg acgtattctc 360
aatcactggt cgtggtactg ttgctacagg ccgtgttgaa cgtggtcaaa tcaaagtcgg 420
tgaagaaatc garatcatcg gtatgcaaga agaatcaagc aaaacaactg ttactggtgt 480
agaaatgttc cgtaaattat tagactacgc tgaagctggt gacaacattg gtgcattatt 540
acgtggtgtt tcacgtgatg atgtacaacg tggtcaagtt ttagctgctc ctggtactat 600
cacaccacat acaaaattca aagcggatgt ttacgtttta tctaaagatg aaggtggtcg 660
tcatacgcca ttcttcacta actaccgccc acaattctat ttccgtacta ctgacgtaac 720
tggtgttgtt aacttaccag aaggtactga aatggttatg cctggcgata acgttgaaat 780
ggatgttgaa ttaatttctc caatcgctat tgaagac 817

<210> 1730
<211> 817
<212> DNA
<213> Staphylococcus simulans ATCC 27848

<400> 1730
cggcggtatc ttagtagtat ctgctgcaga tggtccaatg ccacaaactc gtgaacacat 60
cttattatca cgtaacgttg gtgtaccagc tttagttgta ttcttaaaca aagctgacat 120
ggttgacgac gaagaattat tagaattagt tgaaatggaa gttcgtgact tattatctga 180
atacgacttc cctggtgacg atgtaccagt tatcgttggt tctgcattaa aagctttaga 240
aggcgaccca gaatacgaac aaaaaatctt agacttaatg caagctgtag atgactacat 300
cccaactcca gaacgtgact ctgataaacc attcatgatg ccagttgagg acgtattctc 360
aatcactggt cgtggtactg tagcaacagg ccgtgttgaa cgtggtcaaa tcaaagtcgg 420
tgaagaagtt gaaatcatcg gtatcactga agaaagcaag aaaacaacag ttacaggtgt 480
agaaatgttc cgtaaattat tagactacgc tgaagctggt gacaacatcg gtgctttatt 540
acgtggtgtt gcacgtgaag acgtacaacg tggacaagta ttagcagctc ctggctctat 600
tactccacac acaaaattca aagctgatgt ttacgtttta tctaaagaag aaggtggacg 660
tcatactcca ttcttcacta actaccgccc acaattctac ttccgtacta ctgacgtaac 720
tggcgttgtt cacttaccag aaggtactga aatggttatg cctggcgata acgtagaaat 780
gactgttgaa ttgatcgctc caatcgcgat tgaagac 817

<210> 1731
<211> 817
<212> DNA
<213> Streptococcus agalactiae ATCC 27591

<400> 1731
cggagctatc cttgtagttg cttcaactga tggaccaatg ccacaaactc gtgagcacat 60
ccttctttca cgtcaagttg gtgttaaaca ccttatcgta ttcatgaaca aagttgacct 120
tgttgatgat gaagaattgc ttgaattggt tgaaatggaa attcgtgacc ttctttcaga 180
atacgacttc ccaggtgatg accttccagt tatccaaggt tcagctctta aagcacttga 240
aggcgacgaa aaatacgaag acatcatcat ggaattgatg agcactgttg atgagtacat 300
tccagaacca gaacgtgata ctgacaaacc tttacttctt ccagttgaag atgtattctc 360
aatcactgga cgtggtacag ttgcttcagg acgtatcgac cgtggtactg ttcgtgtcaa 420
cgacgaagtt gaaatcgttg gtattaaaga agatatccaa aaagcagttg ttactggtgt 480
tgaaatgttc cgtaaacaac ttgacgaagg tcttgcaggg gacaacgttg gtgttcttct 540
tcgtggtgtt caacgtgatg aaatcgaacg tggtcaagtt cttgctaaac caggttcaat 600
caacccacac actaaattta aaggtgaagt ttacatcctt tctaaagaag aaggtggacg 660
tcatactcca ttcttcaaca actaccgtcc acaattctac ttccgtacaa ctgacgtaac 720
aggttcaatc gaacttccag caggaacaga aatggttatg cctggtgata acgttactat 780
cgaagttgaa ttgattcacc caatcgccgt agaacaa 817

<210> 1732
<211> 817
<212> DNA
<213> Streptococcus pneumoniae ATCC 27336

<400> 1732
cggagctatc cttgtagtag cttcaactga cggaccaatg ccacaaactc gtgagcacat 60
ccttctttca cgtcaggttg gtgttaaaca ccttatcgtc ttcatgaaca aagttgactt 120

ggttgacgac gaagaattgc ttgaattggt tgaaatggaa atccgtgacc tattgtcaga 180
atacgacttc ccaggtgacg atcttccagt tatccaaggt tcagcactta aagctcttga 240
aggtgactct aaatacgaag acatcgttat ggaattgatg aacacagttg atgagtatat 300
cccagaacca gaacgtgaca ctgacaaacc attgcttctt ccagtcgagg acgtattctc 360
aatcactgga cgtggtacag ttgcttcagg acgtatcgac cgtggtatcg ttaaagtcaa 420
cgacgaaatc gaaatcgttg gtatcaaaga agaaactcra aaagcagttg ttactggtgt 480
tgaaatgttc cgtaaacaac ttgacgaagg tcttgctgga gataacgtag gtgtccttct 540
tcgtggtgtt caacgtgatg aaatcgaacg tggacaagtt atcgctaaac caggttcaat 600
caacccacac actaaattca aaggtgaagt ctacatcctt actaaagaag aaggtggacg 660
tcacactcca ttcttcaaca actaccgtcc acaattctac ttccgtacta ctgacgttac 720
aggttcaatc gaacttccag caggtactga aatggtaatg cctggtgata acgtgacaat 780
cgacgttgag ttgattcacc caatcgccgt agaacaa 817

<210> 1733
<211> 817
<212> DNA
<213> Streptococcus salivarius ATCC 7073

<400> 1733
cggtgcgatc cttgtagtag catctactga cggaccaatg ccacaaactc gtgagcacat 60
ccttctttca cgtcaggttg gtgttaaaca ccttatcgtc ttcatgaaca aagttgactt 120
ggttgacgat gaagaattgc ttgaattggt tgaaatggaa atccgtgacc ttctttcaga 180
atacgatttc ccaggtgatg acattccagt tatccaaggt tcagctctta aagctcttga 240
aggtgattct aaatacgaag acatcatcat ggacttgatg aacactgttg acgaatacat 300
cccagaacca gaacgtgaca ctgacaaacc attgttgctt ccagtcgaag acgtattctc 360
aatcactggt cgtggtactg ttgcttcagg acgtatcgac cgtggtgttg ttcgtgtcaa 420
tgacgaagtt gaaatcgttg gtcttaaaga agacatccaa aaagcagttg ttactggtgt 480
tgaaatgttc cgtaaacaac ttgacgragg tattgccgga gataacgtcg gtgttcttct 540
tcgtggtatc caacgtgatg aaatcgaacg tggtcaagta ttggctgcac ctggttcaat 600
caacccacac actaaattca aaggtgaagt ttacatcctt tctaaagaag aaggtggacg 660
tcacactcca ttcttcaaca actaccgtcc acagttctac ttccgtacaa ctgacgtaac 720
aggttcaatc gaacttcctg caggtactga aatggttatg cctggtgata acgtgactat 780
cgacgttgag ttgatccacc caatcgccgt tgaacaa 817

<210> 1734
<211> 897
<212> DNA
<213> Agrobacterium tumefaciens

<400> 1734
aacatgatca ccggtgctgc cgagatggac ggcgcgatcc tggtttgctc ggctgccgac 60
ggcccgatgc cacagacccg cgagcacatc ctgcttgccc gtcaggtggg cgttccggcc 120
atcgtcgtgt tcctcaacaa ggtcgaccag gttgacgacg ccgagcttct cgagctcgtc 180
gagcttgaag ttcgcgaact tctgtcgtcc tacgacttcc cgggcgacga tatcccgatc 240
atcaagggtt cggcacttgc tgctcttgaa gattctgaca agaagatcgg tgaagacgcg 300
atccgcgagc tgatggctgc tgtcgacgcc tacatcccga cgcctgagcg tccgatcgac 360
cagccgttcc tgatgccgat cgaagacgtg ttctcgatct cgggtcgtgg tacggttgtg 420
acgggtcgcg ttgagcgcgg tatcgtcaag gttggtgaag aagtcgaaat cgtcggcatc 480
cgtccgacct cgaagacgac tgttaccggc gttgaaatgt tccgcaagct gctcgaccag 540
ggccaggccg gcgacaacat cggtgcactc gttcgcggcg ttacccgtga cggcgtcgag 600
cgtggtcaga tcctgtgcaa gccgggttcg gtcaagccgc acaagaagtt catggcagaa 660
gcctacatcc tgacgaagga agaaggcggc cgtcatacgc cgttcttcac gaactaccgt 720
ccgcagttct acttccgtac gactgacgtt accggtatcg tttcgcttcc tgaaggcacg 780
gaaatggtta tgcctggcga caacgtcact gttgaagtcg agctgatcgt tccgatcgcg 840
atggaagaaa agctgcgctt cgctatccgc gaaggcggcc gtaccgtcgg cgccggc 897

<210> 1735
<211> 885
<212> DNA
<213> Bacillus subtilis strain 168

<400> 1735
atgatcactg gtgctgcgca aatggacgga gctatccttg tagtatctgc tgctgatggc 60

ccaatgccac aaactcgtga gcacatcctt ctttctaaaa acgttggtgt accatacatc 120
gttgtattct taaacaaatg cgacatggta gacgacgaag agcttcttga actagttgaa 180
atggaagttc gcgatcttct tagcgaatac gacttccctg gtgatgatgt accagttgtt 240
aaaggttctg ctcttaaagc tcttgaagga gacgctgagt gggaagctaa aatcttcgaa 300
cttatggatg cggttgatga gtacatccca actccagaac gcgacactga aaaaccattc 360
atgatgccag ttgaggacgt attctcaatc actggtcgtg gtacagttgc tactggccgt 420
gtagaacgcg gacaagttaa agtcggtgac gaagttgaaa tcatcggtct tcaagaagag 480
aacaagaaaa caactgttac aggtgttgaa atgttccgta agcttcttga ttacgctgaa 540
gctggtgaca acattggtgc ccttcttcgc ggtgtatctc gtgaagaaat ccaacgtggt 600
caagtacttg ctaaaccagg tacaatcact ccacacagca aattcaaagc tgaagtttac 660
gttctttcta aagaagaggg tggacgtcat actccattct tctctaacta ccgtcctcag 720
ttctacttcc gtacaactga cgtaactggt atcatccatc ttccagaagg cgtagaaatg 780
gttatgcctg gagataacac tgaaatgaac gttgaactta tttctacaat cgctatcgaa 840
gaaggaactc gtttctctat tcgtgaaggc ggacgtactg ttggt 885

<210> 1736
<211> 882
<212> DNA
<213> Bacteroides fragilis DSM 2151

<400> 1736
atggttactg gtgctgctca gatggacggt gctatcattg tagttgctgc tactgatggt 60
ccgatgcctc agactcgtga gcacatcctt ttggctcgtc aggtaaacgt tccgaagctg 120
gttgtattca tgaacaagtg cgatatggtt gaagatgctg agatgttgga acttgttgaa 180
atggaaatga gagaattgct ttcattctat gatttcgacg gtgacaatac tccgatcatt 240
cagggttctg ctcttggtgc attgaacggc gtagaaaaat gggaagacaa agtaatggaa 300
ctgatggaag ctgttgatac ttggattcca ctgcctccgc gcgatgttga taaacctttc 360
ttgatgccgg tagaagacgt gttctctatc acaggtcgtg gtactgtagc tacaggtcgt 420
atcgaaactg gtgttatcca tgtaggtgat gaaatcgaaa tcctcggttt gggtgaagat 480
aagaaatcag ttgtaacagg tgttgaaatg ttccgcaaac ttctggatca gggtgaagct 540
ggtgacaacg taggtctgtt gcttcgtggt gttgacaaga acgaaatcaa acgtggtatg 600
gttctttgta aaccgggtca gattaaacct cactctaaat tcaaagcaga ggtttatatc 660
ctgaagaaag aagaaggtgg tcgtcacact ccattccata acaaatatcg tcctcagttc 720
tacctgcgta ctatggactg tacaggtgaa atcactcttc cggaaggaac tgaaatggta 780
atgccgggtg ataacgtaac tatcactgta gagttgatct atccggttgc actgaacatc 840
ggtcttcgtt tcgctatccg cgaaggtgga cgtacagtag gt 882

<210> 1737
<211> 888
<212> DNA
<213> Borrelia burgdorferi strain U78183

<400> 1737
aatatgatta caggagcagc tcaaatggat gcagcgatac ttttagttgc tgctgatagt 60
ggtgctgagc ctcaaacaaa agagcatttg cttcttgctc aaagaatggg aataaagaaa 120
ataatagttt ttttaaataa attggactta gcagatcctg aacttgttga gcttgttgaa 180
gttgaagttt tagaacttgt tgaaaaatat ggcttttcag ctgatactcc aataatcaaa 240
ggttcagctt ttggggctat gtcaaatcca gaagatcctg aatctacaaa atgcgttaaa 300
gaacttcttg aatctatgga taattatttt gatcttccag aaagagatat tgacaagcca 360
tttttgcttg ctgttgaaga tgtattttct atttcaggaa gaggcactgt tgctactggg 420
cgtattgaaa gaggtattat taaagttggt caagaagttg aaatagttgg aattaaagaa 480
accagaaaaa ctactgttac tggtgttgaa atgttccaga aaattcttga gcaaggtcaa 540
gcaggggata atgttggtct tcttttgaga ggcgttgata aaaaagacat tgagaggggg 600
caagttttgt cagctccagg tacaattact ccacacaaga aatttaaagc ttcaatttat 660
tgtttgacta aagaagaagg cggtaggcac aagccatttt tcccagggta tagaccacag 720
ttctttttta gaacaaccga tgttactgga gttgttgctt tagagggcaa agaaatggtt 780
atgcctggtg ataatgttga tattattgtt gagctgatct cttcaatagc tatggataag 840
aatgtagaat ttgctgttcg agaaggtgga agaaccgttg cttcagga 888

<210> 1738
<211> 894
<212> DNA
<213> Brevibacterium linens DSM 20425

<400> 1738
aacatgatca ccggtgccgc tcagatggac ggtgcgatcc tcgtcgtcgc cgctaccgac 60
ggaccgatgc cccagacccg tgagcacgtg ctgctcgcgc gtcaggtcgg cgttccctac 120
atcgtcgtgg ctctgaacaa gtccgacatg gtcgatgacg aggagctcct cgagctcgtc 180
gaattcgagg tccgcgacct gctctcgagc caggacttcg acggagacaa cgctccggtc 240
attccggtgt ccgctctcaa ggcgctggaa ggcgacgaga agtgggtcaa gagcgttcag 300
gatctcatgg ctgccgtcga tgacaacgtt ccggagccgg agcgcgatgt cgacaagccg 360
ttcctcatgc ccgtcgagga cgtcttcacg atcaccggtc gtggaaccgt cgtcaccggt 420
cgtgtcgagc gcggcgtgct cctgcctaac gacgaaatcg aaatcgtcgg catcaaggag 480
aagtcgtcca agacgactgt caccgctatc gagatgttcc gcaagaccct gccggatgcc 540
cgtgcaggtg agaacgtcgg tctgctcctc cgcggcacca agcgcgagga tgttgagcgc 600
ggtcaggtca tcgtgaagcc gggttcgatc accccgcaca ccaagttcga ggctcaggtc 660
tacatcctga gcaaggacga gggcggacgt cacaacccgt tctactcgaa ctaccgtccg 720
cagttctact tccggaccac ggacgtcacc ggtgtcatca cgctgcccga gggcaccgag 780
atggtcatgc ccggcgacaa caccgatatg tcggtcgagc tcatccagcc gatcgctatg 840
gaggaccgcc tccgcttcgc aatccgcgaa ggtggccgca ccgtcggcgc cggt 894

<210> 1739
<211> 888
<212> DNA
<213> Chlamydia trachomatis strain F/IC-Cal-13

<400> 1739
atgatcacgg gcgcagcgca gatggacggc gcgatcctgg tttgctcggc agcagacggc 60
ccgatgccgc aaacgcgtga gcacatcctg ctggcgcgtc aggttggtgt tccgtacatc 120
atcgtgttcc tgaacaagtg cgacagtgtg gacgacgctg aactgctcga gctggtcgag 180
atggaagttc gcgaactcct gtcgaagtac gacttcccgg gcgacgacac gccgatcgtg 240
aagggttcgg ccaagctggc gctggaaggc gacacgggcg agctgggcga agtggcgatc 300
atgagcctgg cagacgcgct ggacacgtac atcccgacgc cggagcgtgc agttgacggc 360
gcgttcctga tgccggtgga agacgtgttc tcgatctcgg gccgtggtac ggtggtgacg 420
ggtcgtgtcg agcgcggcat cgtgaaggtc ggcgaagaaa tcgaaatcgt cggtatcaag 480
ccgacggtga agacgacctg cacgggcgtt gaaatgttcc gcaagctgct ggaccaaggt 540
caggcaggcg acaacgtcgg tatcctgctg cgcggcacga agcgtgaaga cgtggagcgt 600
ggccaggttc tggcgaagcc gggttcgatc acgccgcaca cgcacttcac ggctgaagtg 660
tacgtgctga gcaaggacga aggcggccgt cacacgccgt tcttcaacaa ctaccgtccg 720
cagttctact tccgtacgac ggacgtgacg ggctcgatcg agctgccgaa ggacaaggaa 780
atggtgatgc cgggcgacaa cgtgtcgatc acggtgaagc tgattgctcc gatcgcgatg 840
gaagaaggtc tgcgcttcgc aatccgtgaa ggcggccgta cggtcggc 888

<210> 1740
<211> 891
<212> DNA
<213> Fibrobacter succinogenes strain S85

<400> 1740
aacatggtga ctggtgctgc tcagatggac ggcgctatcc tcgttgttgc cgctactgac 60
ggtccgatgc cgcagactcg cgaacacatc cttctcgctc accaggttgg cgtgccgaag 120
atcgtcgtgt tcatgaacaa gtgcgacatg gttgacgatg ctgaaattct cgacctcgtc 180
gaaatggaag ttcgcgaact cctctccaag tatgacttcg acggtgacaa caccccgatc 240
atccgtggtt ccgctctcaa ggccctcgaa ggcgatccgg aataccagga caaggtcatg 300
gaactcatga acgcttgcga cgaatacatc ccgctcccgc agcgcgatac cgacaagccg 360
ttcctcatgc cgatcgaaga cgtgttcacg attactggcc gcggcactgt cgctactggc 420
cgtatcgaac gcggtgtcgt tcgcttgaac gacaaggttg aacgtatcgg tctcggtgaa 480
accaccgaat acgtcatcac cggtgttgaa atgttccgta agctcctcga cgacgctcag 540
gcaggtgaca acgttggtct cctcctccgt ggtgctgaaa agaaggacat cgtccgtggc 600
atggttctcg cagctccgaa gtctgtcact ccgcacaccg aatttaaggc tgaaatctac 660
gttctcacga aggacgaagg tggccgtcac acgccgttca tgaatggcta ccgtccgcag 720
ttctacttcc gcaccaccga cgttactggt acgatccagc tcccggaagg tgtcgaaatg 780
gttactccgg gtgacacggt cacgatccac gtgaacctca tcgctccgat cgctatggaa 840
aagcagctcc gcttcgctat ccgtgaaggt ggacgtactg ttggtgctgg c 891

<210> 1741
<211> 894

<212> DNA
<213> Flavobacterium ferrugineum DSM 13524

<400> 1741
aacatgatca ccggtgctgc ccagatggac ggtgctatct tagttgtggc tgcatcagac 60
ggtcctatgc ctcaaacaaa agaacacatc ctgcttgctg cccaggtagg tgtacctaaa 120
atggttgtgt ttctgaataa agttgacctc gttgacgacg aagagctcct ggagctggtt 180
gagatcgagg ttcgcgaaga actgactaaa cgcggtttcg acggcgacaa cactccaatc 240
atcaaaggtt ccgctacagg cgccctcgct ggtgaagaaa agtgggttaa agaaattgaa 300
aacctgatgg acgctgttga cagctacatc ccactgcctc ctcgtccggt tgatctgccg 360
ttcctgatga gcgtagagga cgtattctct atcactggtc gtggtactgt tgctaccggt 420
cgtatcgagc gtggccgtat caaagttggt gagcctgttg agatcgtagg tctgcaggag 480
tctcccctga actctaccgt tacaggtgtt gagatgttcc gcaaactcct cgacgaaggt 540
gaagctggtg ataacgccgg tctcctcctc cgtggtgttg aaaaaacaca gatccgtcgc 600
ggtatggtaa tcgttaaacc cggttccatc actccgcaca cggacttcaa aggcgaagtt 660
tacgtactga gcaaagacga aggtggccgt cacactccat tcttcaacaa ataccgtcct 720
caattctact tccgtacaac tgacgttaca ggtgaagtag aactgaacgc aggaacagaa 780
atggttatgc ctggtgataa caccaacctg accgttaaac tgatccaacc gatcgctatg 840
gaaaaaggtc tgaaattcgc gatccgcgaa ggtggccgta ccgtaggtgc agga 894

<210> 1742
<211> 906
<212> DNA
<213> Helicobacter pylori strain 26695

<400> 1742
aacatgatca ccggtgcggc gcaaatggac ggagcgattt tggttgtttc tgcagctgat 60
ggccctatgc ctcaaactag ggagcatatc ttattgtctc gtcaagtagg cgtgcctcac 120
atcgttgttt tcttaaacaa acaagacatg gtagatgacc aagaattgtt agaacttgta 180
gaaatggaag tgcgcgaatt gttgagcgcg tatgaatttc ctggcgatga cactcctatc 240
gtagcgggtt cagctttaag agctttagaa gaagcaaagg ctggtaatgt gggtgaatgg 300
ggtgaaaaag tgcttaaact tatggctgaa gtggatgcct atatccctac tccagaaaga 360
gacactgaaa aaactttctt gatgccggtt gaagatgtgt tctctattgc gggtagaggg 420
actgtggtta caggtaggat tgaaagaggc gtggtgaaag taggcgatga agtggaaatc 480
gttggtatca gacctacaca aaaaacgact gtaaccggtg tagaaatgtt taggaaagag 540
ttggaaaaag gtgaagccgg cgataatgtg ggcgtgcttt tgagaggaac taaaaaagaa 600
gaagtggaac gcggtatggt tctatgcaaa ccaggttcta tcactccgca caagaaattt 660
gagggagaaa tttatgtcct ttctaaagaa gaaggcggga gacacactcc attcttcacc 720
aattaccgcc cgcaattcta tgtgcgcaca actgatgtga ctggctctat caccttcct 780
gaaggcgtag aaatggttat gcctggcgat aatgtgaaaa tcactgtaga gttgattagc 840
cctgttgcgt tagagttggg aactaaattt gcgattcgtg aaggcggtag gaccgttggt 900
gctggt 906

<210> 1743
<211> 891
<212> DNA
<213> Micrococcus luteus strain IFO 3333

<400> 1743
aacatgatca ccggcgccgc tcagatggac ggcgcgatcc tcgtggtcgc cgctaccgac 60
ggcccgatgg cccagacccg tgagcacgtg ctcctggccc gccaggtcgg cgtgccggcc 120
ctgctcgtgg ccctgaacaa gtcggacatg gtggaggacg aggagctcct cgagcgtgtc 180
gagatggagg tccggcagct gctgtcctcc aggagcttcg acgtcgacga ggccccggtc 240
atccgcacct ccgctctgaa ggccctcgag ggcgaccccc agtgggtcaa gtccgtcgag 300
gacctcatgg atgccgtgga cgagtacatc ccggacccgg tgcgcgacaa ggacaagccg 360
ttcctgatgc cgatcgagga cgtcttcacg atcaccggcc gtggcaccgt ggtgaccggt 420
cgcgccgagc gcggcaccct gaagatcaac tccgaggtcg agatcgtcgg catccgcgac 480
gtgcagaaga ccactgtcac cggcatcgag atgttccaca agcagctcga cgaggcctgg 540
gccggcgaga actgcggtct gctcgtgcgc ggtctgaagc gcgacgacgt cgagcgcggc 600
caggtgctgg tggagccggg ctccatcacc ccgcacacca acttcgaggc gaacgtctac 660
atcctgtcca aggacgaggg tgggcgtcac accccgttct actcgaacta ccgcgcgcag 720
ttctacttcc gcaccaccga cgtcaccggc gtcatcacgc tgcccgaggg caccgagatg 780
gtcatgcccg gcgacaccac cgagatgtcg gtcgagctca tccagccgat cgccatggag 840
gagggcctcg gcttcgccat ccgcgagggt ggccgcaccg tgggctccgg c 891

<210> 1744
<211> 891
<212> DNA
<213> Mycobacterium tuberculosis strain Erdmann

<400> 1744
aacatgatca ccggcgccgc gcagatggac ggtgcgatcc tggtggtcgc cgccaccgac 60
ggcccgatgc cccagacccg cgagcacgtt ctgctggcgc gtcaagtggg tgtgccctac 120
atcctggtag cgctgaacaa ggccgacgca gtggacgacg aggagctgct cgaactcgtc 180
gagatggagg tccgcgagct gctggctgcc caggaattcg acgaggacgc cccggttgtg 240
cgggtctcgg cgctcaaggc gctcgagggt gacgcgaagt gggttgcctc tgtcgaggaa 300
ctgatgaacg cggtcgacga gtcgattccg gacccggtcc gcgagaccga caagccgttc 360
ctgatgccgg tcgaggacgt cttcaccatt accggccgcg gaaccgtggt caccggacgt 420
gtggagcgcg gcgtgatcaa cgtgaacgag gaagttgaga tcgtcggcat tcgcccatcg 480
accaccaaga ccaccgtcac cggtgtggag atgttccgca agctgctcga ccagggccag 540
gcgggcgaca acgttggttt gctgctgcgg ggcgtcaagc gcgaggacgt cgagcgtggc 600
caggttgtca ccaagcccgg caccaccacg ccgcacaccg agttcgaagg ccaggtctac 660
atcctgtcca aggacgaggg cggccggcac acgccgttct tcaacaacta ccgtccgcag 720
ttctacttcc gcaccaccga cgtgaccggt gtggtgacac tgccggaggg caccgagatg 780
gtgatgcccg gtgacaacac caacatctcg gtgaagttga tccagcccgt cgccatggac 840
gaaggtctgc gtttcgcgat ccgcgagggt ggccgcaccg tgggcgccgg c 891

<210> 1745
<211> 891
<212> DNA
<213> Mycoplasma genitalium strain G37

<400> 1745
aatatgatca caggtgctgc acaaatggat ggagctattc tagttgtttc agcaactgat 60
agtgtgatgc cccaaacccg cgagcacatc ttacttgccc gccaagtagg ggttcctaaa 120
atggtagttt ttctaaacaa gtgtgatatt gctagtgatg aagaggtaca agaacttgtt 180
gctgaagaag tacgtgatct gttaacttcc tatggttttg atggtaagaa cactcctatt 240
atttatggct cagctttaaa agcattggaa ggtgatccaa agtgggaggc taagatccat 300
gatttgatta aagcagttga tgaatggatt ccaactccta cacgtgaagt agataaacct 360
ttcttattag caattgaaga tacgatgacc attactggta gaggtacagt tgttacagga 420
agagttgaaa gaggtgaact caaagtaggt caagaagttg aaattgttgg tttaaaacca 480
attagaaaag cagttgttac tggaattgaa atgttcaaaa aggaacttga ttcagcaatg 540
gctggtgaca atgctggggt attattacgt ggtgttgaac gtaaagaagt tgaaagaggt 600
caagttttag caaaaccagg ctctattaaa ccgcacaaga aatttaaagc tgagatctat 660
gctttaaaga aagaagaagg tggtagacac actggttttt taaacggtta ccgtcctcaa 720
ttctatttcc gtaccactga tgtaactggt tctattgctt tagctgaaaa tactgaaatg 780
gttctacctg gtgataatgc ttctattact gttgagttaa ttgctcctat cgcttgtgaa 840
aaaggtagta agttctcaat tcgtgaaggt ggtagaactg taggggcagg c 891

<210> 1746
<211> 891
<212> DNA
<213> Neisseria gonorrhoeae strain MS11

<400> 1746
aacatgatta ccggcgccgc acaaatggac ggtgcaatcc tggtatgttc tgctgccgac 60
ggccctatgc cgcaaacccg cgaacacatc ctgctggccc gtcaagtagg cgtaccttac 120
atcatcgtgt tcatgaacaa atgcgacatg gtcgacgatg ccgagctgtt ccaactggtt 180
gaaatggaaa tccgcgacct gctgtccagc tacgacttcc ccggcgacga ctgcccgatc 240
gtacaaggtt ccgcactgaa agccttggaa ggcgatgccg cttacgaaga aaaaatcttc 300
gaactggcta ccgcattgga cagatacatc ccgactcccg agcgtgccgt ggacaaacca 360
ttcctgctgc ctatcgaaga cgtgttctcc atttccggcc gcggtaccgt agtcaccggc 420
cgtgtagagc gaggtatcat ccacgttggt gacgagattg aaatcgtcgg tctgaaagaa 480
acccaaaaaa ccacctgtac cggcgttgaa atgttccgca aactgctgga cgaaggtcag 540
gcgggcgaca acgtaggcgt attgctgcgc ggtaccaaac gtgaagacgt agaacgcggt 600
caggtattgg ccaaacgggg tactatcact cctcacacca agttcaaagc agaagtgtac 660
gtattgagca aagaagaggg cggcccccat accccgtttt tcgccaacta ccgtccccaa 720
ttctacttcc gtaccactga cgtaaccggc acgattactt tggaaaaagg tgtggaaatg 780

gtaatgccgg gtgagaacgt aaccattact gtagaactga ttgcgcctat cgctatggaa 840
gaaggtctgc gctttgcgat tcgcgaaggc ggccgtaccg tgggtgccgg c 891

<210> 1747
<211> 891
<212> DNA
<213> Rickettsia prowazekii strain Madrid E

<400> 1747
aatatgataa ctggtgccgc tcagatggat ggtgctatat tagtagtttc tgctgctgat 60
ggtcctatgc ctcaaactag agaacatata ttactggcaa aacaggtagg tgtacctgct 120
atggtagtat ttttgaataa agtagatatg gtagatgatc ctgacctatt agaattagtt 180
gagatggaag taagagaatt attatcaaaa tatggtttcc ctggtaatga aatacctatt 240
attaaaggtt ctgcacttca agctttagaa ggaaaacctg aaggtgaaaa agctattaat 300
gagttaatga atgcagtaga tacgtatata cctcagccta tagagctaca agataaacct 360
tttttaatgc caatagagga tgtatttttct atttcaggca gaggtaccgt tgtaactggt 420
agagtggagt caggcataat taaggtgggt gaagaaattg aaatagtagg tctaaaaaat 480
acgcaaaaaa cgacttgtac aggtgtagaa atgttcagaa aattacttga tgaaggacaa 540
tctggagata atgtcggtat attactacgt ggtacaaaaa gagaagaagt agaaagagga 600
caagtacttg caaaacctgg gagcataaaa ccgcatgata aatttgaagc tgaagtgtat 660
gtgcttagta aagaggaagg tggacgtcat accccattta ctaatgatta tcgcccacag 720
ttctatttta gaacaacaga tgttaccggc acaataaaat tgccttctga taagcagatg 780
gttatgcctg gagataatgc tacttttca gtagaattaa ttaagccgat tgctatgcaa 840
gaagggttaa aattctctat acgtgaaggt ggtagaacag taggagccgg t 891

<210> 1748
<211> 891
<212> DNA
<213> Salmonella choleraesuis subsp. choleraesuis strain LT2 trpE9

<400> 1748
aacatgatca ccggtgctgc tcagatggac ggcgcgatcc tggttgttgc tgcgactgac 60
ggcccgatgc cgcagacccg tgagcacatc ctgctgggtc gtcaggtagg cgttccgtac 120
atcatcgtgt tcctgaacaa atgcgacatg gttgatgacg aagagctgct ggaactggtt 180
gagatggaag ttcgcgaact gctgtctcag tacgacttcc cgggcgacga cactccgatc 240
gttcgtggtt ctgctctgaa agcgctggaa ggcgacgcag agtgggaagc gaaaatcatc 300
gaactggctg gcttcctgga ttcttatatt ccggaaccag agcgtgcgat tgacaagccg 360
ttcctgctgc cgatcgaaga cgtattctcc atctccggtc gtggtaccgt tgttaccggt 420
cgtgtagagc gcggtatcat caaagtgggc gaagaagttg aaatcgttgg tatcaaagag 480
actcagaagt ctacctgtac tggcgttgaa atgttccgca aactgctgga cgaaggccgt 540
gccggtgaga acgtaggtgt tctgctgcgt ggtatcaaac gtgaagaaat cgaacgtggt 600
caggtactgg ctaagccggg caccatcaag ccgcacacca agttcgaatc tgaagtgtac 660
attctgtcca aagatgaagg cggccgtcat actccgttct tcaaaggcta ccgtccgcag 720
ttctacttcc gtactactga cgtgactggt accatcgaac tgccggaagg cgtagagatg 780
gtaatgccgg gcgacaacat caaaatggtt gttaccctga tccacccgat cgcgatggac 840
gacggtctgc gtttcgcaat ccgtgaaggc ggccgtaccg ttggcgcggg c 891

<210> 1749
<211> 881
<212> DNA
<213> Shewanella putrefaciens DSM 50426

<400> 1749
atgatcactg gtgctgcaca gatggacggc gcgattctgg tagtcgcttc aacagacggt 60
ccaatgccac agactcgtga gcacatcctg ctttctcgtc aggttggcgt accattcatc 120
atcgtattca tgaacaaatg tgacatggta gatgacgaag agctgttaga gctagttgag 180
atggaagtgc gtgaactgtt atcagaatac gatttcccag gtgatgactt accggtaatc 240
caaggttcag ctctgaaagc gctagaaggc gagccagagt gggaagcaaa aatccttgaa 300
ttagcagcgg cgctggattc ttacattcca gaaccacaac gtgacatcga taagccgttc 360
ctactgccaa tcgaagacgt attctcaatt tcaggccgtg gtacagtagt aacaggtcgt 420
gttgagcgtg gtattgtacg cgtaggcgac gaagttgaaa tcgttggtgt acgtgcgaca 480
actaagacaa cgtgtactgg tgtagaaatg ttccgtaaac tgcttgacga aggtcgtgca 540
ggtgagaact gtggtatttt gttacgtggt actaagcgtg atgacgtaga acgtggtcaa 600

gtattagcga agccaggttc aatcaaccca cacactactt ttgaatcaga agtttacgta 660
ctgtcaaaag aagaaggtgg tcgtcacacg ccattcttca aaggctaccg tccacagttc 720
tacttccgta caactgacgt aaccggtact atcgaactgc cagaaggcgt agagatggta 780
atgccaggcg ataacatcaa gatggtagtg acactgattt gcccaatcgc gatggacgaa 840
ggtttacgct tcgcaatccg tgaaggcggt cgtacagtgg t 881

<210> 1750
<211> 897
<212> DNA
<213> Stigmatella aurantiaca strain DW4

<400> 1750
aacatgatca cgggcgcggc gcagatggac ggagcgattc tggtggtgtc cgcggccgac 60
ggcccgatgc cccagacgcg tgagcacatc ctgctggcca ggcaggtggg cgtgccctac 120
atcgtcgtct tcctgaacaa ggtggacatg ctggacgatc cggagctgcg cgagctggtg 180
gagatggagg tgcgcgacct gctcaagaag tacgagttcc cgggcgacag catccccatc 240
atccctggca gcgcgctcaa ggcgctggag ggagacacca gcgacatcgg cgagggagcg 300
atcctgaagc tgatggcggc ggtggacgag tacatcccga cgccgcagcg tgcgacggac 360
aagccgttcc tgatgccggt ggaagacgtg ttctccatcg caggccgagg aacggtggcg 420
acgggccgag tggagcgcgg caagatcaag gtgggcgagg aagtggagat cgtggggatc 480
cgtccgacgc agaagacggt catcacgggg gtggagatgt tccgcaagct gctggacgag 540
ggcatggcgg gagacaacat cggagcgctg ctgcgaggcc tgaagcgcga ggacctggag 600
cgtgggcagg tgctggcgaa ctgggggagc atcaacccgc acacgaagtt caaggcgcag 660
gtgtacgtgc tgtcgaagga agagggaggg cggcacacgc cgttcttcaa gggataccgg 720
ccgcagttct acttccggac gacggacgtg accggaacgg tgaagctgcc ggacaacgtg 780
gagatggtga tgccgggaga caacatcgcc atcgaggtgg agctcattac tccggtcgcc 840
atggagaagg agctgccgtt cgccatccgt gagggtggcc gcacggtggg cgccggc 897

<210> 1751
<211> 897
<212> DNA
<213> Thiomonas cuprina strain Hoe5

<400> 1751
aacatgatca ccggtgcggc ccagatggac ggcgccatcc tggtcgtgtc cgccgccgac 60
ggccccatgc cccaaacccg cgagcacatc ctgctggcgc gtcaggtggg cgtgccctac 120
atcatcgtgt tcctcaacaa gtgcgacatg gtcgacgacg ccgagctgct cgaactcgtc 180
gagatggaag tgcgcgagct gctgtccaag tacgacttcc ccggtgacga cacccccatc 240
atcaagggct cggccaagct ggccctcgaa ggcgacaagg gcgaactggg cgaaggcgcc 300
attctcaagc tggccgaggc cctggacacc tacatcccca cgcccgagcg ggccgtcgac 360
ggcgcgttcc tcatgcccgt ggaagacgtg ttctccatct ccgggcgcgg cacggtggtc 420
accgggcgtg tggagcgcgg catcatcaag gtcggcgagg aaatcgagat tgtcggcctc 480
aagcccaccc tcaagaccac ctgcaccggc gtggaaatgt tcaggaagct gctcgaccag 540
ggccaggccg gcgacaacgt cggcatcttg ctgcgcggca ccaagcgcga ggaagtcgag 600
cgcggccagg tgctgtgcaa acccggctcg atcaagcccc acacccactt caccgccgag 660
gtgtacgtgc tgagcaagga cgagggcggc cgccacaccc ccttcttcaa caactaccgc 720
ccgcagttct acttccgcac caccgacgtc accggcgcca tcgaactgcc caaggacaag 780
gaaatggtca tgcccggcga taatgtgagc atcaccgtca agctcatcgc ccccatcgcc 840
atggaagaag gcctgcgctt cgccatccgc gaaggcggcc gcaccgtcgg cgccggc 897

<210> 1752
<211> 894
<212> DNA
<213> Treponema pallidum strain Nichols

<400> 1752
aatatgatca cgggtgctgc gcagatggac ggtggtattc tcgtcgtgtc tgcgcctgac 60
ggcgttatgc cacagacgaa ggagcatctt ctgctcgccc gtcaggttgg tgttccctcc 120
atcattgttt ttttgaacaa ggttgatttg gttgatgatc ctgagttgct agagctggtg 180
gaagaagagg tgcgtgatgc gcttgctgga tatgggtttt cgcgtgagac gcctatcgtc 240
aaggggtctg cgtttaaagc tctgcaggat ggcgcttccc cggaggatgc agcttgtatt 300
gaggaactgc ttgcggccat ggattcctac tttgaagacc cagtgcgtga cgacgcaaga 360
cctttcttgc tctctatcga ggatgtgtac actatttctg ggcgtggtac cgttgtcacg 420

gggcgcatcg aatgtggggt aattagtctg aatgaagagg tcgagatcgt cgggattaag 480
cccactaaga aaacagtggt tactggcatt gagatgttta ataagttgct tgatcaggga 540
attgcaggtg ataacgtggg gctgcttttg cgcggggtgg ataaaaaaga ggttgagcgc 600
ggtcaggtgc tttctaagcc cggttctatt aagccacaca ccaagtttga ggcgcagatc 660
tacgtgctct ctaaggaaga gggtggccgt cacagtcctt tttttcaagg ttatcgtccg 720
cagttttatt ttagaactac tgacattacc ggtacgattt ctcttcctga aggggtagac 780
atggtgaagc cgggggataa caccaagatt ataggtgagc tcatccaccc gatagctatg 840
gacaagggtc tgaagcttgc gattcgtgaa ggggggcgca ctattgcttc tggt 894

<210> 1753
<211> 891
<212> DNA
<213> Ureaplasma urealyticum ATCC 33697

<400> 1753
aatatgatta caggggcagc acaaatggat ggagcaattt tagttattgc tgcatctgat 60
ggggttatgg ctcaaactaa agaacatatt ttattagcac gtcaagttgg tgttccaaaa 120
atcgttgttt tcttaaacaa atgtgatttc atgacagatc cagatatgca agatcttgtt 180
gaaatggaag ttcgtgaatt attatctaaa tatggatttg atggcgataa cacaccagtt 240
attcgtggtt caggtcttaa ggctttagaa ggagatccag tttgagaagc aaaaattgat 300
gaattaatgg acgcagttga ttcatgaatt ccattaccag aacgtagtac tgacaaacca 360
ttcttattag caattgaaga tgtattcaca atttcaggac gtggtacagt agtaactgga 420
cgtgttgaac gtggtgtatt aaaagttaat gatgaggttg aaattgttgg tctaaaagac 480
actcaaaaaa ctgttgttac aggaattgaa atgtttagaa aatcattaga tcaagctgaa 540
gctggtgata atgctggtat tttattacgt ggtattaaaa aagaagatgt tgaacgtggt 600
caagtacttg taaaaccagg atcaattaaa cctcaccgta cttttactgc taaagtttat 660
attcttaaaa aagaagaagg tggacgtcat acacctattg tttcaggata ccgtccacaa 720
ttctatttta gaacaacaga tgtaacaggt gctatttcat tacctgctgg tgttgatttg 780
gttatgccag gtgatgacgt tgaaatgact gtagaattaa ttgctccagt tgcgattgaa 840
gatggatcta aattctcaat ccgtgaaggt ggtaaaactg taggtcatgg t 891

<210> 1754
<211> 909
<212> DNA
<213> Wolinella succinogenes DSM 1740

<400> 1754
aacatgatta caggtgctgc tcaaatggat ggcgcgattc ttgttgtttc tgcggcggat 60
ggcccccatgc cccaaactag ggagcacatt cttctttctc gacaagtagg cgttccttac 120
atcgtggttt tcttgaacaa agaagatatg gttgatgacg ctgagcttct tgagcttgtt 180
gaaatggaag ttagagaact tcttagcaac tacgacttcc ctggagatga cactcctatc 240
gttgcaggtt ccgctcttaa agctcttgaa gaggctaacg accaggaaaa tgttggcgag 300
tggggcgaga aagtattgaa gcttatggct gaggttgacc gatatattcc tacgcctgag 360
cgagatgtgg ataagccttt ccttatgcct gttgaagacg tattctccat cgcgggtcgt 420
ggaaccgttg tgacaggaag aattgaaaga ggcgtggtta aagtcggtga cgaagtagaa 480
atcgttggta tccgaaacac acaaaaaaca accgtaactg gcgttgagat gttccgaaaa 540
gagctcgaca agggtgaggc gggtgacaac gttggtgttc ttttgagagg caccaagaaa 600
gaagatgttg agagaggtat ggttctttgt aaaataggtt ctatcactcc tcacactaac 660
tttgaaggtg aagtttacgt tctttccaaa gaggaaggcg gacgacacac tccattcttc 720
aatggatacc gacctcagtt ctatgttaga actacagacg ttaccggttc tatctctctt 780
cctgagggcg tagagatggt tatgcctggt gacaacgtta agatcaatgt tgagcttatc 840
gctcctgtag ccctcgaaga gggaacacga ttcgcgatcc gtgaaggtgg tcgaaccgtt 900
ggtgcgggt 909

<210> 1755
<211> 888
<212> DNA
<213> Burkholderia cepacia

<400> 1755
atgatcacgg gcgcagcgca gatggacggc gcgatcctgg tttgctcggc agcagacggc 60
ccgatgccgc aaacgcgtga gcacatcctg ctggcgcgtc aggttggtgt tccgtacatc 120
atcgtgttcc tgaacaagtg cgacagtgtg gacgacgctg aactgctcga gctggtcgag 180

atggaagttc gcgaactcct gtcgaagtac gacttcccgg gcgacgacac gccgatcgtg 240
aagggttcgg ccaagctggc gctggaaggc gacacgggcg agctgggcga agtggcgatc 300
atgagcctgg cagacgcgct ggacacgtac atcccgacgc cggagcgtgc agttgacggc 360
gcgttcctga tgccggtgga agacgtgttc tcgatctcgg gccgtggtac ggtggtgacg 420
ggtcgtgtcg agcgcggcat cgtgaaggtc ggcgaagaaa tcgaaatcgt cggtatcaag 480
ccgacggtga agacgacctg cacgggcgtt gaaatgttcc gcaagctgct ggaccaaggt 540
caggcaggcg acaacgtcgg tatcctgctg cgcggcacga agcgtgaaga cgtggagcgt 600
ggccaggttc tggcgaagcc gggttcgatc acgccgcaca cgcacttcac ggctgaagtg 660
tacgtgctga gcaaggacga aggcggccgt cacacgccgt tcttcaacaa ctaccgtccg 720
cagttctact tccgtacgac ggacgtgacg ggctcgatcg agctgccgaa ggacaaggaa 780
atggtgatgc cgggcgacaa cgtgtcgatc acggtgaagc tgattgctcc gatcgcgatg 840
gaagaaggtc tgcgcttcgc aatccgtgaa ggcggccgta cggtcggc 888

<210> 1756
<211> 388
<212> DNA
<213> Bacillus anthracis strain CIP 9444

<400> 1756
tgaaagttca ggtaaaacaa cagtttcatt acacgcaatt gcagaagtac agcgtcaagg 60
tggacaagca gcgttcattg atgctgagca tgcaatggat cctgtatatg cacaaaaact 120
aggtgttaac atcgatgaat tactattatc acaacctgat acaggggagc aaggtttaga 180
aatcgcagaa gcacttgtac gaagtggtgc ggttgatatt atcgtaattg actctgtagc 240
agctcttgta ccgaaagctg aaattgaagg agacatgggt gactcacacg taggtttaca 300
agctcgtcta atgtctcaag cacttcgtaa actttcaggt gcaatcaata aatcaaaaac 360
aatcgcaatc tttattaacc aaattcgt 388

<210> 1757
<211> 388
<212> DNA
<213> Bacillus anthracis ATCC 4229

<400> 1757
tgaaagttca ggtaaaacaa cagtttcatt acacgcaatt gcagaagtac agcgtcaagg 60
tggacaagca gcgttcattg atgctgagca tgcaatggat cctgtatatg cacaaaaact 120
aggtgttaac atcgatgaat tactattatc acaacctgat acaggggagc aaggtttaga 180
aatcgcagaa gcacttgtac gaagtggtgc ggttgatatt atcgtaattg actctgtagc 240
agctcttgta ccgaaagctg aaattgaagg agacatgggt gactcacacg taggtttaca 300
agctcgtcta atgtctcaag cacttcgtaa actttcaggt gcaatcaata aatcaaaaac 360
aatcgcaatc tttattaacc aaattcgt 388

<210> 1758
<211> 388
<212> DNA
<213> Bacillus cereus ATCC 7064

<400> 1758
tgaaagttca ggtaaaacaa cagtttcatt acacgcaatt gcagaagtac agcgtcaagg 60
tggacaagca gcgttcattg atgctgagca tgcaatggat cctgtatatg cacaaaaact 120
aggtgttaac atcgatgaat tactattatc acaacctgat acaggggagc aaggtttaga 180
aatcgcagaa gcacttgtac gaagtggtgc ggttgatatt atcgtaattg actctgtagc 240
agctcttgta ccgaaagctg aaattgaagg agacatgggt gactcacacg taggtttaca 300
agctcgtcta atgtctcaag cacttcgtaa actttcaggt gcaatcaata aatcaaaaac 360
aatcgcaatc tttattaacc aaattcgt 388

<210> 1759
<211> 388
<212> DNA
<213> Bacillus cereus ATCC 13472

<400> 1759
tgaaagttca ggtaaaacga cagtttcatt acatgcaatt gcagaagtac aacgtcaagg 60

tggacaagca gcattcatcg atgcggagca cgcaatggat cctgtatatg cacaaaaatt 120
aggcgttaac atagatgaat tactattatc acagcctgat acaggggagc aaggattaga 180
aatcgcggaa gcacttgtac gaagtggtgc ggttgacatt atcgtaattg actctgtagc 240
agctcttgta ccgaaagcag agattgaagg tgacatgggt gactcacacg taggtttaca 300
agcacgttta atgtcacaag cacttcgtaa gctttcagga gcaatcaaca aatcaaaaac 360
aattgcaatc tttattaacc aaattcgt 388

<210> 1760
<211> 374
<212> DNA
<213> Bacillus mycoides ATCC 6462

<400> 1760
aaacgacagt ttcattacat gcaattgcag aagtacaacg tcaaggtgga caagcagcat 60
tcatcgatgc ggagcacgca atggatcctg tatatgcaca aaaattaggc gttaacatag 120
atgaattact attatcacag cctgatacag gggagcaagg attagaaatc gcagaagcac 180
ttgtacgaag tggtgcggtt gacattatcg taattgactc tgtagcagct cttgtaccga 240
aagcagagat tgaaggagac atgggtgact cacacgtagg tttacaagca cgtttaatgt 300
cacaagcact tcgtaagctt tcaggagcaa tcaacaaatc aaaaacaatt gcaatcttta 360
ttaaccaaat tcgt 374

<210> 1761
<211> 381
<212> DNA
<213> Bacillus pseudomycoides NRRL BD-10

<400> 1761
ggaaagttca ggtaaaacaa cggtttcctt acatgcgatt gcagaagtgc aacgtcaagg 60
tggacaagcg gcatttattg atgcggagca tgcgatggat cctgtatatg cacaaaagtt 120
aggtgttaat attgatgagt tactattatc gcagcctgat acaggagaac aaggtttaga 180
aatcgcagaa gcattagtac gaagcggtgc gattgatatc attgtaattg actctgtagc 240
agctcttgta ccaaaagcag aaatcgaagg ggaaatgggt gactcccacg ttggtttaca 300
agcgcgttta atgtcacaag cacttcgtaa gctttctggt gcgattaaca aatcaaaaac 360
aattgcaatc ttcattaacc a 381

<210> 1762
<211> 388
<212> DNA
<213> Bacillus thuringiensis strain HER 1410

<400> 1762
tgaaagttca ggtaaaacga cagtttcatt acatgcaatt gcagaagtac aacgtcaagg 60
tggacaagca gcattcatcg atgcggagca cgcaatggat cctgtatatg cacaaaaatt 120
aggcgttaac atagatgaat tactattatc acagcctgat acaggggagc aaggattaga 180
aatcgcggaa gcacttgtac gaagtggtgc ggttgacatt atcgtaattg actctgtagc 240
agctcttgta ccgaaagcag agattgaagg cgacatgggt gactcacacg taggtttaca 300
agcacgttta atgtcacaag cacttcgtaa gctttcagga gcaatcaaca aatcaaaaac 360
aattgcaatc tttattaacc aaattcgt 388

<210> 1763
<211> 388
<212> DNA
<213> Bacillus thuringiensis strain HER 1418

<400> 1763
tgaaagttca ggtaaaacga cagtttcatt acatgcaatt gcagaagtac aacgtcaagg 60
tggacaagca gcattcattg atgcggagca cgcaatggat cctgtatatg cacaaaaatt 120
aggcgttaac atagatgaat tactattatc acagcctgat acaggggagc aaggattgga 180
aatcgcggaa gcacttgtac gaagtggtgc ggttgacatt atcgtaattg actctgtagc 240
agctcttgta ccgaaagcag agattgaagg cgatatgggt gactcacacg taggtttaca 300
agcacgttta atgtcacaag cacttcgtaa gctttcagga gcaatcaaca aatcaaaaac 360
aattgcaatc tttattaacc aaattcgt 388

<210> 1764
<211> 358
<212> DNA
<213> Klebsiella oxytoca ATCC 33496

<400> 1764
ctcctatctg gattatgcga tgtcggtcat tgttggccgt gcgctgccgg atgtccgaga 60
tggcctgaag ccggtacacc gtcgcgtact atacgccatg aacgtattgg gcaatgactg 120
gaacaaagcc tataaaaaat ctgcccgtgt cgtgggtgac gtcatcggta aataccaccc 180
tcatggtgat actgccgtat acgacaccat tgtacgtatg gcgcagccct tctccctgcg 240
ttacatgctg gtagatggcc agggtaactt tggttcggtc gacggcgact ccgccgcagc 300
gatgcgttat acggaaatcc gtatgtcgaa gatcgcccat gaactgatgg ccgacctc 358

<210> 1765
<211> 365
<212> DNA
<213> Klebsiella pneumoniae subsp. ozaenae ATCC 11296

<400> 1765
ttaagaactc ttatctggat tatgcgatgt cggtcattgt tggccgtgcg ctgccggatg 60
tccgagatgg cctgaagccg gtacaccgtc gcgtacttta cgccatgaac gtattgggca 120
atgactggaa caaagcctat aaaaaatcag cccgtgtcgt tggtgacgta atcggtaaat 180
accacccgca cggcgactcc gcggtatacg acaccatcgt gcgtatggcg cagccgttct 240
cgctgcgtta catgctggtg gacggccagg gtaactttgg ttccatcgac ggcgactccg 300
ccgcggcgat gcgttatacc gaaattcgtc tggcgaaaat cgctcatgag ctgatggccg 360
atctt 365

<210> 1766
<211> 344
<212> DNA
<213> Klebsiella planticola ATCC 33531

<400> 1766
aagagctcgt atctggatta tgcgatgtcg gtcattgttg gccgtgcgct gccggatgtc 60
cgagatggcc tgaaaccggt acaccgtcgc gtactttacg ccatgaacgt attgggcaat 120
gactggaaca aagcctataa aaaatccgcc cgtgtcgttg gtgacgtaat cggtaaatac 180
caccctcatg gtgataccgc cgtttatgac accattgtac gtatggcaca gccattctcc 240
ttgcgttata tgctggtcga tggccagggt aacttcggtt ctgtcgatgg cgactccgcc 300
gcagcgatgc gttatacgga aatccgtatg tcgaaaatcg ccca 344

<210> 1767
<211> 345
<212> DNA
<213> Klebsiella pneumoniae ATCC 27336

<400> 1767
aactcttatc tggattatgc gatgtcggtc attgttggcc gtgcgctgcc ggatgtccga 60
gatggcctga agccggtaca ccgtcgcgta ctttacgcca tgaacgtatt gggcaatgac 120
tggaacaaag cctataaaaa atcagcccgt gtcgttggtg acgtaatcgg taaataccac 180
ccgcacggcg actccgcggt atacgacacc atcgtgcgta tggcgcagcc gttctcgctg 240
cgttacatgc tggtggacgg ccagggtaac tttggttcca tcgacggcga ctccgccgcg 300
gcgatgcgtt ataccgaaat tcgtctggcg aaaatcgctc atgag 345

<210> 1768
<211> 356
<212> DNA
<213> Klebsiella pneumoniae subsp. pneumoniae ATCC 13883

<400> 1768
cttatctgga ttatgcgatg tcggtcattg ttggccgtgc gctgccggat gtccgagatg 60
gcctgaagcc ggtacaccgt cgcgtacttt acgccatgaa cgtattgggc aatgactgga 120

acaaagccta taaaaaatca gcccgtgtcg ttggtgacgt aatcggtaaa taccacccgc 180
acggcgactc cgcggtatac gacaccatcg tgcgtatggc gcagccgttc tcgctgcgtt 240
acatgctggt ggacggccag ggtaactttg gttccatcga cggcgactcc gccgcggcga 300
tgcgttatac cgaaattcgt ctggcgaaaa tcgctcatga gctgatggcc gatctt 356

<210> 1769
<211> 361
<212> DNA
<213> Klebsiella pneumoniae subsp. pneumoniae ATCC 29011

<400> 1769
taagaactct tatctggatt atgcgatgtc ggtcattgtt ggccgtgcgc tgccggatgt 60
ccgagatggc ctgaagccgg tacaccgtcg cgtactttac gccatgaacg tattgggcaa 120
tgactggaac aaagcctata aaaaatcagc ccgtgtcgtt ggtgacgtaa tcggtaaata 180
ccacccgcac ggcgactccg cggtatacga caccatcgtg cgtatggcgc agccgttctc 240
gctgcgttac atgctggtgg acggccaggg taactttggt tccatcgacg gcgactccgc 300
cgcggcgatg cgttataccg aaattcgtct ggcgaaaatc gctcatgagc tgatggccga 360
t 361

<210> 1770
<211> 365
<212> DNA
<213> Klebsiella pneumoniae subsp. rhinoscleromatis ATCC 13824

<400> 1770
taagaactct tatctggatt atgcgatgtc ggtcattgtt ggccgtgcgc tgccggatgt 60
ccgagatggc ctgaagccgg tacaccgtcg cgtactttac gccatgaacg tattgggcaa 120
tgactggaac aaagcctata aaaaatcagc ccgtgtcgtt ggtgacgtaa tcggtaaata 180
ccacccgcac ggcgactccg cggtatacga caccatcgtg cgtatggcgc agccgttctc 240
gctgcgttac atgctggtgg acggccaggg taactttggt tccatcgacg gcgattccgc 300
cgcggcgatg cgttataccg aaattcgtct ggcgaaaatc gctcatgagc tgatggccga 360
tcttg 365

<210> 1771
<211> 357
<212> DNA
<213> Klebsiella terrigena ATCC 33257

<400> 1771
tcgtatctgg attatgcgat gtcggtcatt gttggccgtg cgctgccgga tgtccgagat 60
gggttgaaac cggtacaccg tcgcgtactt tacgccatga acgtattggg caatgactgg 120
aacaaagcct ataaaaaatc cgcccgtgtc gttggtgacg taatcggtaa atatcaccct 180
cacggtgata ccgccgttta tgacaccatt gtacgtatgg cgcagccatt ctccttgcgt 240
tatatgctgg tcgatggcca gggtaacttc ggttctgtcg atggcgactc cgccgcagcg 300
atgcgttata cggaaatccg tatgtcgaaa atcgcccacg agctgatggc cgacctc 357

<210> 1772
<211> 968
<212> DNA
<213> Legionella pneumophila strain pneumophila ATCC 33152

<400> 1772
cagtacacag gcgagttctt tttgcgatga gtgagttaag taatgattgg aataagccgt 60
ataaaaaatc tgctcgtgta gtaggggatg tcattggtaa atatcatcct catggggata 120
cagctgttta tgacactatt gttcgtatgg ctcagccctt ttccatgcgt tatatgctga 180
ttgatgggca gggtaatttt ggctctgtag atggagatgc tccagctgcc atgcgttaca 240
ctgaagtaag aatgtccaaa gtggcgcatg ctttactggc tgatttggat aaggaaaccg 300
ttgattttag tcctaactat gatgaaacag aatttgctcc agtggtattg ccatcgagaa 360
ttcccaattt actagttaat ggctcttccg gtattgcggt agggatggct actaatattc 420
caccacataa tcttaccgaa gtaatcaatg catgtattgc tttagtggat gaacctgaca 480
cgagtcttga agatttaatg gaaattattc ctggccctga ttttcctaca gccgcaatta 540
ttaatggtcg tgctggaatt attgaaggtt atcgtactgg aaaagggcgg gttgttatca 600

gggcacgcac agaaattgaa acggatgaaa gttcaggccg tcagtcaatt attattcagg 660
aattacccta tcaggtgaat aaagcgcgtt tgatcgagcg tattgctgaa ttggtaaggg 720
acaagaaaat cgaaggaatt tccggcttga gagatgagtc agacaagcaa ggaatgagag 780
tagtcattga attaaaacgc aatgaagtag cagatgtggt attgaataac ctgttcgctc 840
atactcaaat gcaaaatgta ttcggaatta atatggttgc tctggtggat ggccaaccgc 900
gtactttgaa tttgaagcaa atactggaat attttataaa acatcgaaga gaggttgtta 960
ccagacgc 968

<210> 1773
<211> 967
<212> DNA
<213> Proteus mirabilis ATCC 25933

<400> 1773
caccgccgag tgctatttgc gatgaatgta ctgggaaacg attggaataa accttataaa 60
aaatcagccc gtgttgttgg ggatgtaatc ggtaaatatc acccgcacgg tgacagtgct 120
gtctatgaaa cgattgttcg tttagcacag ccttttttcta tgcgctacat gttggttgac 180
ggtcagggta acttcgggtc agttgatggt gactccgcgg cggctatgcg ttataccgaa 240
gttcgtatgg cgaagatcgc ccatgaactg ctggcggatt tggaaaaaga gacggtcgac 300
tttgttccta actatgatgg aacagaaaat ataccggctg ttatgccaac ccgtattcca 360
aacttgttag ttaatggctc ttcaggtatt gccgttggga tggcaacgaa tatccctccg 420
cataacctcg gtgaagttat cgacggttgt cttgcctatg ttgataatga agacatcacc 480
atagaagaat taatggaata tattaccggg cctgattttc cgactgctgc gattattaat 540
ggtcgcagag gaatattaga tgcttatcgt acagggcgtg gaaagattta tatccgtgct 600
caggctgata ttgaaactga tgagaaaaca ggtcgcgaaa ccattatcgt gacagaaatt 660
ccttatcagg tgaataaagc ccgtttaatt gaaaaaattg cggagcttgt aaaagataaa 720
cgtattgaag gtatcagcgg attacgtgac gagtctgata aagacggtat gcgtattgtt 780
gttgagatca aacgtgatgc agtcggtgaa gtagtattaa atcacctctt ttcacaaact 840
caaatgcaag tctcttttgg tattaatatg gttgcgcttc atcaaggcca accaaaatta 900
ttgaacctaa aagaaattat cgcagccttt attcgccatc gtcgtgaagt ggtgactcgc 960
cgtacca 967

<210> 1774
<211> 978
<212> DNA
<213> Providencia rettgeri ATCC 9250

<400> 1774
ccagtacacc gcagagtatt gtatgcgatg aatgtattgg gaaatgattg gaataaaccc 60
tataaaaaat ctgcccgtat tgttggggac gtcatcggta aataccatcc acatggtgat 120
agcgctgttt acgagacaat cgttcgtctt gctcagcctt tctcaatgcg ttacatgctg 180
gttgatggtc agggaaactt cggttctgtt gacggagact ccgcagcggc aatgcgttat 240
acggaaatcc gtatggcgaa aattgcccat gaactacttg ctgaccttga aaaagaaacc 300
gttgatttcg ttcctaacta tgacggaaca gagcacattc ctgaagttat gccaacgaaa 360
atcccaaacc ttttggttaa tgggtcgtca ggtattgctg ttgggatggc aaccaatatc 420
ccacctcaca atttagggga ggtgattaat ggttgtcttg cctatataga agacgaagac 480
atcagcattg atggtttaat ggaacacatt ccagggcctg atttcccaac cgcagctatt 540
attaatggcc gtcgtgggat tattgatgcg tatcgcacag ggcgtggcaa ggtctatatc 600
cgtgcaagcg ctgaagtgga agtcgatgag aaaaatggtc gcgaaaccat tattgtcagc 660
gaaattcctt atcaagtgaa taaagctcgc ttgattgaaa aaattgctga gttagttaaa 720
gacaagcgtg ttgaaggtat cagtgcactg cgtgacgagt ctgataaaga cggtatgcgt 780
attgttattg aaatcaaacg cgatgcggtg ggtgaagttg tactgaacaa cttatattcc 840
ctgacccaat tgcaagtttc ttttggtatc aatatggtag ctctacacca agggcagccg 900
aaaatactga atttaaaaga tatcattgct gcttttgtgc gtcaccgccg tgaagtcgtc 960
actcgtcgta cgattttc 978

<210> 1775
<211> 978
<212> DNA
<213> Proteus vulgaris ATCC 13315

<400> 1775
ccagtacacc gtcgcgttct tttcgcgatg aatgtattag gaaacgattg gaataaacct 60

tataaaaaat cagcccgtgt tgttggggat gttatcggta aatatcaccc gcacggtgac 120
agtgctgttt atgaaacgat agttcgttta gcacagcctt tttctatgcg ttacatgttg 180
gttgacgggc agggtaactt cgggtcagtt gatggtgact cggcggctgc aatgcgttat 240
accgaagttc gtatggcgaa aatcgcccat gaactgctgg cggatttgga aaaagaaacg 300
gttgattttg ttcctaacta tgatggaaca gagcatatcc cggcagtcat gccaacccgt 360
attccaaact tattagtcaa tggttcttca ggtatcgcag tcgggatggc aacaaacatt 420
cctccgcata acctaggtga agttatcgac ggctgtcttg cttatgttga taacgaagac 480
atcactattg aagagttgat ggagcatatc acggggcctg atttcccaac tgccgctatt 540
attaatggcc gcagaggaat tttagatgct taccgtactg ggcgcggaaa aatttatatt 600
cgtgcacaag ctgatgtaga aaccgatgag aaaactggtc gcgaaacaat tatcgtgacg 660
gaaattcctt atcaggtgaa caaagctcgc ttaattgaaa aaattgcaga gcttgttaaa 720
gataaacgta ttgaaggcat tagcggatta cgtgatgagt cagataaaga tggtatgcgc 780
attgttgttg aaattaagcg tgatgctgtt ggtgaagttg tactaaatca cttattttct 840
cagactcaga tgcaggtttc ttttggtatt aacatggttg cactgcatca aggtcaaccg 900
aaagtgttaa acctgaaaga aattatttca gcctttattc gtcaccgtcg tgaagtggtg 960
actcgtcgta ctatttttt 978

<210> 1776
<211> 940
<212> DNA
<213> Yersinia enterocolitica ATCC 9610

<400> 1776
tgggtaatga ctggaataag ccatacaaaa aatcggcccg tgtagtcggg gacgttatcg 60
gtaaatatca cccgcatggt gacagcgcgg tctacgacac aattgtgcgt atggcccagc 120
cgttctcact gcgctatatg ctggtggatg ggcagggcaa cttcggttcc gttgatggcg 180
actccgccgc agcgatgcgt tataccgaaa tccgtatgtc taaaattgct cacgaattgt 240
tggcggactt agaaaaagat accgtcgact tcgtgccgaa ctatgacggt acggagcaaa 300
ttcctgccgt aatgccaacc cgaatcccta acttgctggt taacggctcg tcaggtattg 360
ctgtcggtat ggcaaccaat attccgccgc ataacctttc tgaggttatt gatggctgtc 420
tggcctatat cgaagatgaa aacatcacca ttgaagggtt gatggagtac atcccggggc 480
cagatttccc aactgctgcg attatcaatg gtcgccgtgg tattgaagaa gcttatcgta 540
ctggccgtgg caaggtgtat atccgtgccc gtgctgaagt tgaggctgac gcttaaaccg 600
gtcgcgaaac cattattgtt cacgagatcc cgtatcaggt gaacaaggcg cggttgattg 660
aaaaaatcgc cgagctggtt aaagaaaaac gcgtagaagg catcagtgcg ttgcgtgatg 720
agtctgataa agacggcatg cgtatcgtga ttgaaatcaa acgtgatgct gtcggggaag 780
tggttctgaa caacctctat tctctgacgc aattgcaggt gactttcggt atcaatatgg 840
tggctctgtc tcaagggcag cctaagttgc ttaacctgaa agacattttg gttgctttcg 900
tgcgccaccg ccgtgaagtg gtgactcgcc gtaccatttt 940

<210> 1777
<211> 668
<212> DNA
<213> Klebsiella oxytoca ATCC 13182

<400> 1777
ccgtttattg gcgatggcct gaagccggtc cagcgtcgca tcgtctatgc gatgtctgaa 60
ctgggtctga acgccagcgc gaagttcaaa aagtccgccc gcaccgtcgg tgacgtgctg 120
ggtaaatacc atccccacgg cgacagcgcg tgctatgaag ccatggtgct gatggctcag 180
cccttctcct accgctatcc gctggttgac ggtcagggaa actgggggc gccggacgat 240
cctaaatcct tcgccgcaat gcgttatacc gaatcccgtt tgtcgaagta tgctgaactg 300
ctgctgagcg aactggggca aggcaccgtt gactgggtac caaacttcga cggcactttg 360
caggagccga agatgctgcc tgcgcgcctg cccaatattc tgctaaacgg tactaccggc 420
attgccgttg ggatggcgac ggacattccg ccgcacaacc tgcgtgaagt ggcccgggcg 480
gccattaccc tgattgaaaa gccgcaaact tcgctggatg acctgctgga tatcgtgcag 540
gggccggatt atcctaccga agcggaaatc attacccccc gtgccgaaat ccgcaaaatc 600
taccagaatg gccgcggttc ggtgcggatg cgcgcggtat gggccaaaga agacggcgcg 660
gtggtgat 668

<210> 1778
<211> 714
<212> DNA
<213> Klebsiella oxytoca ATCC 33496

<400> 1778
gtttattggc gatggcctga agccggtcca gcgtcgcatc gtctatgcga tgtctgaact 60
gggtctgaac gccagcgcga agttcaaaaa gtccgcccgc accgtcggtg acgtgctggg 120
taaataccat ccccacggcg acagcgcgtg ctatgaagcc atggtgctga tggctcagcc 180
cttctcctac cgctatccgc tggttgacgg tcagggaaac tgggggggcgc cggacgatcc 240
taaatccttc gccgcaatgc gttataccga atcccgtttg tcgaagtatg ctgaactgct 300
gctgagcgaa ctggggcaag gcaccgttga ctgggtacca aacttcgacg gcactttgca 360
ggagccgaag atgctgcctg cgcgcctgcc caatattctg ctaaacggta ctaccggcat 420
tgccgttggg atggcgacgg acattccgcc gcacaacctg cgtgaagtgg cccgggcggc 480
cattaccctg attgaaaagc cgcaaacttc gctggatgac ctgctggata tcgtgcaggg 540
gccggattat cctaccgaag cggaaatcat tacccccgt gccgaaatcc gcaaaatcta 600
ccagaatggc cgcggttcgg tgcggatgcg cgcggtatgg gccaaagaag acggcgcggt 660
ggtgattagc gcgctgccgc atcaggtttc cggcgcccgc gtgcttgagc agat 714

<210> 1779
<211> 722
<212> DNA
<213> Klebsiella pneumoniae subsp. ozaenae ATCC 11296

<400> 1779
ttggcgatgg cttaaaaccg gtccagcgtc gcatcgtcta tgcgatgtcc gagctggggc 60
tgaacgccag cgcgaaattc aaaaagtccg cccgcaccgt cggcgacgtg ttgggtaaat 120
atcacccgca cggcgacagc gcctgctatg aagcgatggt gctgatggcg cagccgttct 180
cttaccgcta tccgctggtg gatggtcagg gaaactgggg ggcgccggac gatcccaaat 240
ctttcgccgc catgcgttac accgaatccc gcctgtcgaa gtatgccgag ctgctgctca 300
gcgagctggg gcaggggacg gtcgactggg tgccaaactt tgacggtacg ctgcaggagc 360
cgaaaatgct gccagcgcgt ttgccgaaca tcctgctgaa cggcaccacc ggcatcgcgg 420
taggtatggc gaccgatatt cctccgcaca acctgcggga agtggccaaa gcggcgatta 480
cgctgattga gcagccgaaa accacccctcg acgaactgct ggatatcgta caggggccgg 540
atttcccgac cgaggcggag atcatcacct cgcgggcgga aattcgaaaa atctaccaga 600
acgggcgcgg ctcagtgcgc atgcgcgcgg tgtggagtaa agaggacggc gcggtggtga 660
tcagcgcgct gccgcatcag gtctccggcg ccaaagtgct ggagcagatt gcggcgcaga 720
tg 722

<210> 1780
<211> 692
<212> DNA
<213> Klebsiella planticola ATCC 33531

<400> 1780
gtccagcgtc gcatcgttta tgcgatgtct gagctggggc tgaacgccag cgcgaagttc 60
aaaaagtccg cccgcaccgt gggtgatgtg ctgggtaaat atcacccgca cggcgatagc 120
gcatgctatg aagctatggt gctgatggcg cagccattct cctaccgcta cccgctggtg 180
gatgggcagg ggaactgggg ggcaccggac gatcctaaat ccttcgccgc gatgcgttat 240
accgaatccc gtttgtcgaa gtatgcggaa ctgctgctgg gcgaactggg gcagggaacc 300
gtcgactggg tgccgaactt cgacgggacg atgcaggagc cgaaaatgct gcctgcgcgt 360
ctgccgaata ttctgctgaa cggcactacc ggcatcgccg tcggtatggc aaccgatatt 420
cctccgcaca acctgcgtga agtggcgcag gcggcgatta ccctgatcga aaaaccgcag 480
acctcgctcg acgaactgct ggatatcgtt cacggacccg actacccgac cgaagccgaa 540
atcattactc cacgcgcgga gatccgcaaa atctaccaga acggccgcgg ttcggtgcgg 600
atgcgcgcgg tatggaaaaa agaggacggc gcggtcgtga ttacggcgtt gccgcatcag 660
gtttccggcg cccgcgtgct ggagcaaatt gc 692

<210> 1781
<211> 700
<212> DNA
<213> Klebsiella pneumoniae ATCC 27336

<400> 1781
gtttattggc gatggcttaa aaccggtcca gcgtcgcatc gtctatgcga tgtccgagct 60
ggggctgaac gccagcgcga aattcaaaaa gtccgcccgc accgtcggcg acgtgttggg 120
taaatatcac ccgcacggcg acagcgcctg ctatgaagcg atggtgctga tggcgcagcc 180
gttctcttac cgctatccgc tggtggatgg tcagggaaac tgggggggcgc cggacgatcc 240

caaatctttc gccgccatgc gttacaccga atcccgcctg tcgaagtatg ccgagctgct 300
gctcagcgag ctggggcagg ggacggtcga ctgggtgcca aactttgacg gcacgctgca 360
ggagccgaaa atgctgccag cgcgtttgcc gaacatcctg ctgaacggca ccaccggcat 420
cgcggtaggc atggcgaccg atattcctcc gcacaacctg cgggaagtgg ccaaagcggc 480
gattacgctg attgagcagc cgaaaaccac cctcgacgaa ctgctggata tcgtacaggg 540
gccggatttc ccgaccgagg cggagatcat cacctcgcgg gcggaaattc gcaaaatcta 600
ccaaaacggg cgcggctcag tgcgcatgcg cgcggtgtgg agtaaagagg acggcgcggt 660
ggtgatcagc gcgctgccgc atcaggtctc cggcgccaaa 700

<210> 1782
<211> 726
<212> DNA
<213> Klebsiella pneumoniae subsp. pneumoniae ATCC 13883

<400> 1782
attggcgatg gcttaaaacc ggtccagcgt cgcatcgtct atgcgatgtc cgagctgggg 60
ctgaacgcca gcgcgaaatt caaaaagtcc gcccgcaccg tcggcgacgt gttgggtaaa 120
tatcacccgc acggcgacag cgcctgctat gaagcgatgg tgctgatggc gcagccgttc 180
tcttaccgct atccgctggt ggatggtcag ggaaactggg gggcgccgga cgatcccaaa 240
tctttcgccg ccatgcgtta caccgaatcc cgcctgtcga agtatgccga gctgctgctc 300
agcgagctgg ggcaggggac ggtcgactgg gtgccaaact ttgacggcac gctgcaggag 360
ccgaaaatgc tgccagcgcg tctgccgaac atcctgctga acggcaccac cggcatcgcg 420
gtaggcatgg cgaccgatat tcctccgcac aacctgcggg aagtggccaa agcggcgatt 480
acgctgattg agcagccgaa aaccaccctc gacgaactgc tggatatcgt acaggggccg 540
gatttcccga ccgaggcgga gatcatcacc tcgcgggcgg aaattcgcaa aatctaccag 600
aacgggcgcg gctcagtgcg catgcgcgcg gtgtggagta aagaggacgg cgcggtggtg 660
atcagtgcgc tgccgcatca ggtctctggc gccaaagtgc tggagcagat tgcggcgcag 720
atgcgc 726

<210> 1783
<211> 706
<212> DNA
<213> Klebsiella pneumoniae subsp. pneumoniae ATCC 29011

<400> 1783
ggcttaaaac cggtccagcg tcgcatcgtc tatgcgatgt ccgagctggg gctgaacgcc 60
agcgcgaaat tcaaaaagtc cgcccgcacc gtcggcgacg tgttgggtaa atatcacccg 120
cacggcgaca gcgcctgcta tgaagcgatg gtgctgatgg cgcagccgtt ctcttaccgc 180
tatccgctgg tggatggtca gggaaactgg ggggcgccgg acgatcccaa atcttttgcc 240
gccatgcgtt acaccgaatc ccgcctgtcg aagtatgccg agctgctgct cagcgagctg 300
gggcagggga cggtcgactg ggtgccaaac tttgacggca cgctgcagga gccgaaaatg 360
ctgccagcgc gtctgccgaa catcctgctg aacggcacca ccggcatcgc ggtaggcatg 420
gcgaccgata ttcctccgca caacctgcgg gaagtggcca aagcggcgat tacgctgatt 480
gagcagccga aaaccaccct cgacgaactg ctggatatcg tacaggggcc ggatttcccg 540
accgaggcgg agatcatcac ctcgcgggcg gaaattcgca aaatctacca gaacgggcgc 600
ggctcagtgc gcatgcgcgc ggtgtggagt aaagaggacg gcgcggtggt gatcagtgcg 660
ctgccgcatc aggtctccgg cgccaaagtg ctggagcaga ttgcgg 706

<210> 1784
<211> 614
<212> DNA
<213> Klebsiella pneumoniae subsp. rhinoscleromatis ATCC 13884

<400> 1784
ttggcgatgg cttaaaaccg gtccagcgtc gcatcgtcta tgcgatgtcc gagctggggc 60
tgaacgccag cgcgaaattc aaaaagtccg cccgcaccgt cggcgacgtg ttgggtaaat 120
atcacccgca cggcgacagc gcctgctatg aagcgatggt gctgatggcg cagccgttct 180
cttaccgcta tccgctggtg gatggtcagg gaaactgggg ggcgccggac gatcccaaat 240
ctttcgccgc catgcgttac accgaatccc gcctgtcgaa gtatgccgag ctgctgctca 300
gcgagctggg gcaggggacg gtcgactggg tgccaaactt tgacggcacg ctgcaggagc 360
cgaaaatgct gccagcgcgt ctgccgaaca tcctgctgaa cggcaccacc ggcatcgcgg 420
taggcatggc gaccgatatt cctccgcaca acctgcggga agtggccaaa gcggcgatta 480
cgctgattga gcagccgaaa accaccctcg acgaactgct ggatatcgta caggggccgg 540

atttcccgac cgaggcggag atcatcacct cgcgggcgga aattcgcaaa atctaccaga 600
acgggcgcgg ctca 614

<210> 1785
<211> 668
<212> DNA
<213> Klebsiella terrigena ATCC 33257

<400> 1785
gcctgaaacc ggtccagcgg cgcatcgttt atgcgatgtc cgaactgggt ctgaacgcca 60
ccgctaaatt caaaaaatcc gcgcgcaccg tcggcgacgt gctgggtaaa tatcacccgc 120
acggcgatag cgcctgctat gaggcgatgg tgctgatggc gcagccgttc tcttaccgct 180
acccgctggt ggacggtcag ggcaactggg gcgccccgga cgatcccaaa tccttcgccg 240
cgatgcgtta taccgaatcc cgcctgtcaa agtatgcgga gctgctgctg ggcgagctgg 300
gtcagggaac cgttgactgg gtacctaact ttgacggtac gatgcaggag ccgaaaatgc 360
tgcctgcgcg tttgccgaat attctgctca acggcaccac cggtatcgcc gtggggatgg 420
ccaccgatat tccgccgcac aacctgcgcg aagtggccaa agcggccatc accctgattg 480
aaaagccgca gacctcgctc gacgaactgc tggatatcgt tcacgggccg gactacccca 540
ccgaagctga aatcatcacc ccgcgcgccg agatccgcaa aatctatcag aacggtcgcg 600
gctcggttcg catgcgtgcg gtgtggaaaa aagaggacgg cgcggtggtg attagcgccc 660
tgccgcat 668

<210> 1786
<211> 113
<212> DNA
<213> Bacillus cereus ATCC 7064

<400> 1786
cattacgttc taacactcaa ggacgcggaa cattctctat ggtgtttgac cactatgaag 60
aagtaccaaa gtctgtttct gaagaaatta tcaaaaaaaa taaaggtgaa taa 113

<210> 1787
<211> 118
<212> DNA
<213> Bacillus cereus ATCC 14579

<400> 1787
aacgtcatta cgttctaaca ctcaaggacg cggaacattc tctatggtgt ttgaccacta 60
tgaagaagta ccaaagtctg tttctgaaga aattatcaaa aaaaataaag gtgaataa 118

<210> 1788
<211> 120
<212> DNA
<213> Bacillus anthracis strain CIP 9444

<400> 1788
gcaacgtcat tacgttctaa cactcaagga cgcggaacat tctctatggt gtttgaccac 60
tatgaagaag taccaaagtc tgtttctgaa gaaattatca aaaaaaataa aggtgaataa 120

<210> 1789
<211> 118
<212> DNA
<213> Bacillus cereus ATCC 13472

<400> 1789
aacgtcatta cgttctaaca ctcaaggacg cggaacattc tctatggtgt ttgaccacta 60
tgaagaagta ccaaagtctg tttctgaaga aattatcaaa aaaaataaag gtgaataa 118

<210> 1790
<211> 120

<212> DNA
<213> Bacillus anthracis ATCC 4229

<400> 1790
gcaacgtcat tacgttctaa cactcaagga cgcggaacat tctctatggt gtttgaccac 60
tatgaagaag taccaaagtc tgtttctgaa gaaattatca aaaaaaataa aggtgaataa 120

<210> 1791
<211> 120
<212> DNA
<213> Bacillus pseudomycoides NRRL B-617

<400> 1791
gcaacgtcat tacgttctaa cacgcaagga cgcggaacat tctcaatgac atttgatcat 60
tatgaagaag taccgaagtc tgtttcagaa gaaattatca aaaaaaataa aggtgaataa 120

<210> 1792
<211> 116
<212> DNA
<213> Bacillus cereus ATCC 49064

<400> 1792
cgtcattacg ttctaacact caaggacgcg gaacattctc tatggtgttt gaccactatg 60
aagaagtacc aaagtctgtt tctgaagaaa ttatcaaaaa aaataaaggt gaataa 116

<210> 1793
<211> 120
<212> DNA
<213> Bacillus anthracis strain CIP 9440

<400> 1793
gcaacgtcat tacgttctaa cactcaagga cgcggaacat tctctatggt gtttgaccac 60
tatgaagaag taccaaagtc tgtttctgaa gaaattatca aaaaaaataa aggtgaataa 120

<210> 1794
<211> 100
<212> DNA
<213> Bacillus cereus ATCC 15816

<400> 1794
cactcaagga cgcggaacat tctctatggt gtttgatcac tatgaagaag taccaaagtc 60
tgtttctgaa gaaattatca aaaaaaataa aggtgaataa 100

<210> 1795
<211> 120
<212> DNA
<213> Bacillus weihenstephanensis strain WSBC 10204

<400> 1795
gcaacggcat tacgttctaa cactcaagga cgcggaacat tctcaatgac atttgatcat 60
tatgaagaag taccgaagtc tgtttctgaa gaaattatta aaaaaaataa aggtgaataa 120

<210> 1796
<211> 120
<212> DNA
<213> Bacillus mycoides ATCC 6462

<400> 1796
gcgacagcat tacgttctaa cactcaagga cgcggaacat tctcaatgac atttgatcat 60
tatgaagaag taccgaagtc tgtttcagaa gaaattatta aaaaaaataa aggcgaataa 120

<210> 1797
<211> 120
<212> DNA
<213> Bacillus thuringiensis ATCC 10792

<400> 1797
gcaacgtcat tacgttctaa cactcaagga cgcggaacat tctctatggt gtttgaccac 60
tatgaagaag taccaaagtc tgtttctgaa gaaattatca aaaaaaataa aggtgaataa 120

<210> 1798
<211> 117
<212> DNA
<213> Bacillus weihenstephanensis strain WSBC 10204

<400> 1798
ttgattttta tcgattgttc aagtataact acttatgtaa gcttagaaag tgagacgcaa 60
gtttcacttt ctagtctaaa tataaaataa cccatataaa ctaaggagga atttaga 117

<210> 1799
<211> 117
<212> DNA
<213> Bacillus thuringiensis ATCC 10792

<400> 1799
ttgattttta tcgattgttc aagtataact acttatgtaa gcttagaaag tgggacgtaa 60
gtttcacttt ctagtctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1800
<211> 117
<212> DNA
<213> Bacillus anthracis ATCC 4229

<400> 1800
ttgattttta tcgattcttc acgtataact acttatgtaa gcttagaaag tgggacgcaa 60
gtttcgcttt ctagcctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1801
<211> 117
<212> DNA
<213> Bacillus pseudomycoides NRRL B-617

<400> 1801
ttgattttta tcgattgttc aagtataact acttatgtaa gcttagaaag tgggacttaa 60
gtttcacttt ctagtctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1802
<211> 117
<212> DNA
<213> Bacillus anthracis strain CIP 9444

<400> 1802
ttgattttta tcgattcttc acgtataact acttatgtaa gcttagaaag tgggacgcaa 60
gtttcgcttt ctagcctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1803
<211> 117
<212> DNA
<213> Bacillus cereus ATCC 7064

<400> 1803
ttgattttta tcgattcttc acgtataact acttatgtaa gcttagaaag tgagacgcaa 60
gtttcgcttt ctagcctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1804
<211> 117
<212> DNA
<213> Bacillus cereus ATCC 49064

<400> 1804
ttgattttta tcgattcttc acgtataact acttatgtaa gcttagaaag tgggacgcaa 60
gtttcacttt ctagcctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1805
<211> 117
<212> DNA
<213> Bacillus mycoides ATCC 6462

<400> 1805
ttgattttta tcaattgttc gagtataact acttatgtaa gcttagaaag tgggacgtaa 60
gtttcgcttt ctagtctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1806
<211> 117
<212> DNA
<213> Bacillus cereus ATCC 14579

<400> 1806
ttgattttta tcgattgttc aagtataact acttatgtaa gcttagaaag tgggacgtaa 60
gtttcacttt ctagtctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1807
<211> 117
<212> DNA
<213> Bacillus cereus ATCC 15816

<400> 1807
ttgattttta tcgattcttc acgtataact acttatgtaa gcttagaaag tgggacgcaa 60
gtttcgcttt ctagcctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1808
<211> 117
<212> DNA
<213> Bacillus cereus ATCC 13472

<400> 1808
ttgattttta tcgattgttc aagtataact acttatgtaa gcttagaaag tgggacgtaa 60
gtttcacttt ctagtctaaa tataaaataa cctatataaa ctaaggagga atttaga 117

<210> 1809
<211> 116
<212> DNA
<213> Bacillus anthracis strain CIP 9440

<400> 1809
ttgattttta tcgattcttc acgtataact acttatgtaa gcttagaaag tgggacgcaa 60
gtttcgcttt ctagcctaaa tataaaataa cctatataaa ctaaggagga atttag 116

<210> 1810

<211> 278
<212> DNA
<213> Bacillus mycoides ATCC 6462

<400> 1810
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagttcttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gacgctgctc cagaagaaag agagcgcgga 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgttaaa aacatgat 278

<210> 1811
<211> 278
<212> DNA
<213> Bacillus thuringiensis ATCC 10792

<400> 1811
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagttcttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgttaaa aacatgat 278

<210> 1812
<211> 270
<212> DNA
<213> Bacillus cereus ATCC 15816

<400> 1812
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagtacttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgttaaa 270

<210> 1813
<211> 278
<212> DNA
<213> Bacillus weihenstephanensis strain WSBC 10204

<400> 1813
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagttcttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gacgctgctc cagaagaaag agagcgcgga 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcatgctga ctatgttaaa aacatgat 278

<210> 1814
<211> 266
<212> DNA
<213> Bacillus anthracis strain CIP 9440

<400> 1814
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagtacttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgt 266

<210> 1815
<211> 269

<212> DNA
<213> Bacillus cereus ATCC 7064

<400> 1815
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagtacttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgttaa 269

<210> 1816
<211> 268
<212> DNA
<213> Bacillus cereus ATCC 13472

<400> 1816
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagttcttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgtta 268

<210> 1817
<211> 278
<212> DNA
<213> Bacillus anthracis ATCC 4229

<400> 1817
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagtacttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgttaaa aacatgat 278

<210> 1818
<211> 268
<212> DNA
<213> Bacillus cereus ATCC 14579

<400> 1818
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagttcttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgtta 268

<210> 1819
<211> 278
<212> DNA
<213> Bacillus anthracis strain CIP 9444

<400> 1819
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagtacttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgttaaa aacatgat 278

<210> 1820
<211> 278
<212> DNA

<213> Bacillus pseudomycoides NRRL B-617

<400> 1820
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagttcttgc aaaagctggt 120
ggtgctgaag cacgcggata cgaccaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga ctatgttaaa aacatgat 278

<210> 1821
<211> 263
<212> DNA
<213> Bacillus cereus ATCC 49064

<400> 1821
atggctaaag ctaaattcga acgttctaaa ccccatgtta acatcggtac aatcggccac 60
gttgaccatg gtaaaactac attaactgct gcgatcacta cagtacttgc aaaagctggt 120
ggtgctgaag cacgcggata cgatcaaatc gatgctgctc cagaagaaag agagcgcggt 180
atcacaatct caactgcaca cgttgagtac gaaactgaaa ctcgtcacta tgcacacgtt 240
gactgcccag gtcacgctga cta 263

<210> 1822
<211> 1668
<212> DNA
<213> Streptococcus oralis ATCC 35037

<400> 1822
caatcgaagt acaacgttct cttcgwgtat tggacggtgc ggttactgtt cttgactcac 60
aatcaggtgt tgagcctcaa actgaaacag tttggcgtca agcaactgag tacggagttc 120
cacgtatcgt atttgctaac aaaatggaca aaatcggtgc tgacttcctt tactcagtaa 180
gcacacttca cgaccgtctt caagcaaacg cacacccaat ccaattgcca atcggtgctg 240
aagatgactt ccgtggtatc atcgacttga tcaagatgaa agctgaaatc tatactaacg 300
accttggtac agatatcctt gaagaagata ttccagctga ataccttgac caagctcaag 360
aataccgtga aaaattggtt gaagcagtcg ctgaaactga tgaagacttg atgatgaaat 420
accttgaagg tgaagaaatc actaacgaag aattgaaagc tgctatccgt aaagcaacta 480
tcaacgttga attcttccca gtattgtgtg gttctgcctt caagaacaag ggtgttcaat 540
tgatgcttga tgcggttatc gactaccttc caagcccact tgatatccca gcgatcaaag 600
gtatcaaccc agatwcagat gaagaagaaa ctcgtccagc atctgacgaa gagccattcg 660
cagctcttgc cttcaagatc atgacggacc catttgtagg tcgtttgaca ttcttccgtg 720
tatactcarg tgttctccaa tcargktctt acgtattgaa cacatctaaa ggtaaacgtg 780
aacgtatcgg acgtatcctt caaatgcacg ctaacagccg tcaagaaatt gacactgttt 840
actcaggtga tatcgctgct gccgttggtt tgaaagatac tycaactggt gactcattgm 900
cagatgaaaa agctaaaatc atccttgagt caatcaacgt tccagamcca gttatccaat 960
tgatggttga gccaaaatct aaagctgacc aagataagat gggtatcgcc cttcaaaaat 1020
tggctgaaga agatccaaca ttccgcgttg aamcaaacgt tgaaactggt gaamcagtta 1080
tctcaggtat gggtgagctt cacttggacg tccttgttga ccgtatgcgt cgtgagttca 1140
aagtggaagc gaacgtaggt gctcctcaag tatcttaccg tgaaacattc cgcgcttcta 1200
ctcaagcacg tggattcttc aaacgtcagt ctggtggtaa aggtcaattc ggtgatgtat 1260
ggattgaatt tactccaaac gaagaaggta aaggattcga attcgaaaac gcaatcgtcg 1320
gtggtgtggt tcctcgtgaa tttatcccag cggttgaaaa aggtttggta gaatctatgg 1380
ctaacggtgt tcttgcaggt tacccaatgg ttgacgttaa agctaagctt tacgatggtt 1440
cataccacga tgtcgactca tctgaaactg ccttcaagat cgcggcttca cttgccctta 1500
aagaagctgc taagtcagca caaccagcta tccttgagcc aatgatgctt gtaaccatca 1560
ctgttccaga agaaaacctt ggtgatgtta tgggtcacgt aactgctcgt cgtggacgtg 1620
tagatggtat ggaagcacwc ggtaacagcc aaatcgttcg tgcttacg 1668

<210> 1823
<211> 115
<212> DNA
<213> Budvicia aquatica ATCC 35567

<400> 1823
agacctgcgt tcacaaacac agggtcgtgc ttcttactct atggagttct tgaagtacaa 60

cgaagcgcca aacaacgttg ctacagcaat cattgaagct cgtaaggcta gataa 115

<210> 1824
<211> 107
<212> DNA
<213> Buttiauxella agrestis ATCC 33320

<400> 1824
ctgcgttcac tgaccaaggt cgtgcatctt actccatgga attcctgaag tatgatgacg 60
cgccaaacaa cgtagctcag gccgtaatcg aagctcgcgg taaataa 107

<210> 1825
<211> 79
<212> DNA
<213> Klebsiella oxytoca ATCC 13182

<400> 1825
ttactccatg gagttcctga agtatgatga tgcgccgaac aacgttgctc aggccgtaat 60
cgaagcccgt ggtaaataa 79

<210> 1826
<211> 111
<212> DNA
<213> Plesiomonas shigelloides ATCC 14029

<400> 1826
cagctgcgtt ctctgaccaa aggtcgtgca tcatacacta tggaattcct gaagtatgat 60
gatgcgccaa acaacgttgc tcaggccgtt attgaagccc gtggtaagta a 111

<210> 1827
<211> 108
<212> DNA
<213> Shewanella putrefaciens ATCC 8071

<400> 1827
gatttgcgct ctgcaactca tgggcgtgct tcgtactcca tggagttctt gaagtactct 60
gatgcaccgc aaaacattgc gaaagcgatt attgaatctc gtagctaa 108

<210> 1828
<211> 113
<212> DNA
<213> Obesumbacterium proteus ATCC 12841

<400> 1828
ctcagctgcg ttctctgacc aaaggtcgtg catcttactc catggaattc ctgaagtatg 60
atgatgcgcc taacaacgtt gctcaggccg ttattgaagc tcgtggcaaa taa 113

<210> 1829
<211> 70
<212> DNA
<213> Klebsiella oxytoca ATCC 13182

<400> 1829
gccgcagggt taaaaccaaa gtcccgtgct ctctcctgaa ggggagagca ctatagtaag 60
gaatatagcc 70

<210> 1830
<211> 66
<212> DNA

<213> Budvicia aquatica ATCC 35567

<400> 1830
gcctcgggta aaacttatat cccagtcccc ctcgtataga gggggataga gtaaaggaag 60
ataatc 66

<210> 1831
<211> 81
<212> DNA
<213> Plesiomonas shigelloides ATCC 14029

<400> 1831
tccacaggat taaaacccag gtttaaacct aagtcccgtg ctctctcctc aggggagagc 60
acaatagtaa ggaatatagc c 81

<210> 1832
<211> 70
<212> DNA
<213> Obesumbacterium proteus ATCC 12841

<400> 1832
gctactagtt taaaacattg atcccgtgct ctctctatga agggagagca caagagtaag 60
gaataaagcc 70

<210> 1833
<211> 72
<212> DNA
<213> Shewanella putrefaciens ATCC 8071

<400> 1833
tttccagtta cgacataaat gttattatgg tccagctttg actggactat tctgaaaaga 60
aaggaatata tc 72

<210> 1834
<211> 73
<212> DNA
<213> Buttiauxella agrestis ATCC 33320

<400> 1834
gccccgggtt ttaaaaaaca ttgatcccgt gctctctcca gaaggggaga gcgcaacagt 60
aaggaatata gcc 73

<210> 1835
<211> 795
<212> DNA
<213> Campylobacter coli ATCC 43479

<400> 1835
ctgcagctga tggtcctatg ccacaaacta gagagcacat ccttctatca cgccaagtag 60
gtgttccata tatcgttgta tttatgaata aagcagatat ggttgatgat gctgaacttt 120
tagaattggt tgaaatggaa attagagaat tattaagctc ttatgatttc ccaggtgatg 180
acacacctat tatttcaggt tctgctttaa aagctcttga agaagcaaaa gctggacaag 240
atggcgaatg gtcagcgaaa attatggatc ttatggctgc tgttgatagc tatattccaa 300
ctccaactcg tgacactgaa aaagatttct taatgccaat tgaagatgtt ttctcaattt 360
caggtcgtgg tactgttgtt acaggtagaa ttgaaaaagg tattgtaaaa gttggtgata 420
ctatagaaat cgttggtatt aaagatactc aaacaacaac tgtaactggc gttgaaatgt 480
ttagaaaaga aatggaccaa ggtgaagcag gggataatgt tggtgttctt cttcgtggta 540
caaaaaaaga agaagttatc cgcggtatgg ttcttgctaa accaaaatca attactccac 600
atactgattt cgaagctgaa gtttatatcc taaataaaga tgagggtggt agacatactc 660
cattctttaa taactataga ccgcaattct atgtaagaac aacagatgta acaggttcta 720
ttaaattagc tgatggcgtt gaaatggtta tgcctggtga aaatgtaaga attactgtaa 780

gcttgattgc accag 795

<210> 1836
<211> 817
<212> DNA
<213> Campylobacter fetus subsp. fetus ATCC 25936

<400> 1836
gccatactag ttgtttctgc agctgatggc ccaatgccac aaactagaga gcacattttg 60
ctatctcgtc aagttggtgt tccatatata gttgttttta tgaacaaagc tgatatggta 120
gatgacgcag agttgctaga attagttgaa atggagatca gagagttatt aagcgaatat 180
gacttccctg gtgatgatac tcctattata agcggatcag cacttcaagc tcttgaagaa 240
gctaaagctg gtaatgatgg cgaatggtca gctaagatta tggatcttat ggctgctgtt 300
gatagctaca taccaactcc agttcgtgct actgataaag atttcttaat gccgattgaa 360
gacgtattct caatttctgg ccgtggtact gttgttactg gtagaattga aaaaggtata 420
gttaaagttg gtgatactat cgaaatcgta ggtattagag atacacaaac tacaacagtt 480
accggcgttg aaatgtttag aaaagaaatg gatcaaggcg aggctggtga taacgttggt 540
gttcttttac gcggtacaaa gaaagaagac gttgaaagag gtatggttct ttgtaagcca 600
aaatcaatta ctcctcatac taaatttgag ggagaagttt atatcttgac taaggaagag 660
ggcggtagac atactccatt cttcaacaac tatagaccac aattttatgt aagaacaaca 720
gatgttactg gatcaatcac tcttccagag ggtactgaga tggttatgcc tggtgataac 780
ttaaaaatca ctgttgagtt aatcaaccca gttgctc 817

<210> 1837
<211> 798
<212> DNA
<213> Campylobacter fetus subsp. venerealis ATCC 33561

<400> 1837
ccatactagt tgtttctgca gctgatggcc caatgccaca aactagagag cacattttgc 60
tatctcgtca agttggtgtt ccatatatag ttgtttttat gaacaaagct gatatggtag 120
atgacgcaga gttgctagaa ttagttgaaa tggagatcag agagttatta agcgaatatg 180
acttccctgg tgatgatact cctattataa gcggatcagc acttcaagct cttgaagaag 240
ctaaagctgg taatgatggc gaatggtcag ctaagattat ggatcttatg gctgctgttg 300
atagctacat accaactcca gttcgtgcta ctgataaaga tttcttaatg ccgattgaag 360
acgtattctc gatttctggc cgtggtactg ttgttactgg tagaattgaa aaaggtatag 420
ttaaagttgg tgatactatc gaaatcgtag gtattagaga tacacaaact acaacagtta 480
ccggcgttga aatgtttaga aaagaaatgg atcaaggcga ggctggtgat aacgttggtg 540
ttcttttacg cggtacaaag aaagaagacg ttgaaagagg tatggttctt tgtaagccaa 600
aatcaattac tcctcatact aaatttgagg gagaagttta tatcttgact aaggaagagg 660
gcggtagaca tactccattc ttcaacaact atagaccaca attttatgta agaacaacag 720
atgttactgg atcaatcact cttccagagg gtactgagat ggttatgcct ggtgataact 780
taaaaatcac tgttagtt 798

<210> 1838
<211> 1116
<212> DNA
<213> Buttiauxella agrestis ATCC 33320

<400> 1838
gtgtctaaag aaaaatttga acgtacaaaa ccgcacgtca acgtcggtac tatcggccac 60
gttgaccatg gtaaaactac tctgactgca gcaatcacta ccgttctggc taaaacctac 120
ggcggttctg cacgcgcatt cgaccagatc gataacgcac cagaagaaaa agctcgtggt 180
atcaccatca acacttccca cgttgaatat gacaccccga ctcgtcacta cgcgcacgtt 240
gactgcccag ggcacgccga ctacgttaaa aacatgatca ccggtgctgc tcagatggac 300
ggcgctatcc tggttgttgc tgcgactgat ggcccgatgc cacagactcg tgagcacatc 360
ctgctgggtc gccaggttgg cgttccattc atgatcgtgt tcatgaacaa atgtgacatg 420
gttgatgacg aagagctgct ggaactggta gaaatggaag ttcgtgaact tctgtctgct 480
tatgatttcc cgggcgacga catcccagtg gttcgtggtt cagctctgaa agcgctggaa 540
ggcgaagcag agtgggaagc taaaatcatc gagctggctg gtcacctgga taactacatc 600
ccagaaccag agcgtgctat cgacaagcca ttcctgctgc caatcgaaga cgtattctcc 660
atctccggcc gtggtactgt tgttactggt cgtgtagagc gtggtatcat taaagttggt 720
gaagaagtag aaatcgttgg tatcaaagat accgtgaaat ctacctgtac tggcgttgaa 780

atgttccgca aactgctgga cgaaggccgt gctggtgaga acgttggtgt tctgctgcgt 840
ggtattaaac gtgaagatat cgaacgtggt caggttctgg ctaagccagg ctctatcaag 900
ccgcacactc agttcgaatc agaagtttat atcctgtcca aagatgaagg cggccgtcat 960
actccgttct tcaaaggcta ccgtccacag ttctacttcc gtacaactga cgtgactggc 1020
accatcgaac tgccagaagg cgttgagatg gtaatgccgg gcgacaacat tcaaatggtt 1080
gttaccctga tccacccaat cgcaatggac gacggt 1116

<210> 1839
<211> 1109
<212> DNA
<213> Klebsiella oxytoca ATCC 13182

<400> 1839
gtgtctaaag aaaaatttga acgtacaaaa ccgcacgtca acgtcggtac tatcggccac 60
gttgaccatg gtaaaactac tctgaccgct gcaatcacta ccgttctggc taaaacctac 120
ggtggtgctg ctcgcgcatt cgaccagatc gataacgcgc cggaagaaaa agctcgtggt 180
atcaccatca acacttccca cgttgaatat gacaccccga ctcgccacta cgcgcacgta 240
gactgcccgg gccacgccga ctatgttaaa aacatgatca ccggtgctgc gcagatggac 300
ggcgcgatcc tggttgttgc tgcgactgac ggcccgatgc cgcagactcg tgagcacatc 360
ctgctgggtc gtcaggtagg cgttccgtac atcatcgtgt tcctgaacaa gtgcgacatg 420
gttgatgacg aagagctgct ggaactggtt gaaatggaag ttcgtgaact tctgtctcag 480
tacgatttcc cgggcgacga cactccgatc gttcgtggtt ctgctctgaa agctctggaa 540
ggcgacgctg agtgggaatc taaaatcatc gaactggctg gcttcctgga ttcttatatt 600
ccggaaccag agcgtgcgat tgacaagccg ttcctgctgc cgatcgaaga cgtattctcc 660
atctccggtc gtggtaccgt tgttaccggt cgtgtagagc gcggtatcat caaagttggc 720
gaagaagttg aaatcgttgg tatcaaagac actgctaagt ctacctgtac tggcgttgaa 780
atgttccgca aactgctgga cgaaggccgt gctggtgaga acgttggtgt tctgctgcgt 840
ggtatcaaac gtgaagaaat cgaacgtggt caggtactgg ctaagccggg ctctatcaag 900
ccgcacacca agttcgaatc tgaagtttat atcctgtcca aagacgaagg cggccgtcac 960
actccgttct tcaaaggcta ccgtccgcag ttctacttcc gtacaactga cgtgactggc 1020
accatcgaac tgccggaagg cgtagagatg gttatgccgg gcgacaacat caaaatggtt 1080
gttaccctga tccacccgat cgcgatgga 1109

<210> 1840
<211> 1108
<212> DNA
<213> Plesiomonas shigelloides ATCC 14029

<400> 1840
gtgtctaaag aaaaatttga acgtactaaa ccgcacgtta acgttggtac tatcggccac 60
gttgaccacg gtaaaactac cctgactgca gctatcacta ccgtactgtc taaagtatac 120
ggtggtcagg ctcgtgcatt cgatcagatc gataacgcgc cagaagaaaa agctcgtggt 180
atcaccatca acacttctca cgtagagtac gacaccccaa ctcgtcacta cgcgcacgtt 240
gactgcccag gtcacgccga ctacgtgaag aacatgatca ctggtgctgc tcagatggac 300
ggcgctatcc tggtagtagc tgcgactgac ggcccaatgc ctcagactcg tgagcacatc 360
ctgctgggtc gtcaggtagg cgttccttac atcatcgtgt tcctgaacaa gtgtgacatg 420
gttgatgacg aagagctgct ggaactggta gaaatggaag tacgtgagct gctgtctcag 480
tacgacttcc caggcgacga tactccagtt gttcgcggtt ctgcactgaa agcgctggaa 540
ggcgatgctc agtgggaaga gaagattgtt gaactggcag gctacctgga cagctacatc 600
cctgagccag agcgtgctat cgacaagcca ttcctgctgc caatcgaaga cgtattctct 660
atctccggcc gtggtactgt agtaactggt cgtgtagagc gcggtatcat caaagttggt 720
gaagaagtag aaatcgttgg tatcaaagag actaccaaga ctacttgtac tggcgttgaa 780
atgttccgta agctgctgga cgaaggtcgt gcgggcgaga acgtaggtgt tctgctgcgt 840
ggtaccaagc gtgatgacgt agagcgtggt caggttctgg ctaagccagg ctcaatcaac 900
ccacacacca actttgtagc agaagtttat attctgtcca aagatgaagg tggtcgtcac 960
actccattct tcaaaggcta ccgtccacag ttctacttcc gtacaactga cgtgaccggt 1020
accatcgaac tgccagaagg cgtagagatg gtaatgccag gtgacaacat tcaaatggtt 1080
gttaccctga ttgcaccaat cgcgatgg 1108

<210> 1841
<211> 1107
<212> DNA
<213> Shewanella putrefaciens ATCC 8071

<400> 1841
tggcaaaagc taaatttgaa cgtattaagc ctcacgtaaa cgtgggcacc attggtcacg 60
ttgaccatgg taaaaccact ctgactgcag ctatctctca cgtactggct aagacctacg 120
gtggcgaagc taaagacttc tctcaaatcg ataacgctcc agaagagcgt gagcgcggta 180
ttaccatcaa tacctctcac atcgaatatg acacgccatc acgccactac gcccacgtag 240
actgcccagg ccacgctgac tatgttaaaa acatgatcac tggtgctgca cagatggacg 300
gcgcgattct ggtagtcgct tcaacagacg gtccaatgcc acagactcgt gagcacatcc 360
tgctttctcg tcaggttggc gtaccattca tcatcgtatt catgaacaaa tgtgacatgg 420
tagatgacga agagctgtta gagctagttg agatggaagt gcgtgaactg ttatcagaat 480
acgatttccc aggtgatgac ttaccggtaa tccaaggttc agctctgaaa gcgctagaag 540
gcgagccaga gtgggaagca aaaatccttg aattagcagc ggcgctggat tcttacattc 600
cagaaccaca acgtgacatc gataagccgt tcctactgcc aatcgaagac gtattctcaa 660
tttcaggccg tggtacagta gtaacaggtc gtgttgagcg tggtattgta cgcgtaggcg 720
acgaagttga aatcgttggt gtacgtgcga caactaagac aacgtgtact ggtgtagaaa 780
tgttccgtaa actgcttgac gaaggtcgtg caggtgagaa ctgtggtatt ttgttacgtg 840
gtactaagcg tgatgacgta gaacgtggtc aagtattagc gaagccaggt tcaatcaacc 900
cacacactac ttttgaatca gaagtttacg tactgtcaaa agaagaaggt ggtcgtcaca 960
cgccattctt caaaggctac cgtccacagt tctacttccg tacaactgac gtaaccggta 1020
ctatcgaact gccagaaggc gtagagatgg taatgccagg cgataacatc aagatggtag 1080
tgacactgat ttgcccaatc gcgatgg 1107

<210> 1842
<211> 1116
<212> DNA
<213> Obesumbacterium proteus ATCC 12841

<400> 1842
gtgtctaaag aaaaatttga acgtacaaaa ccgcacgtta acgttggtac aatcggccac 60
gttgaccacg gtaaaactac cctgactgct gcaatcacta ccgttctggc taaaacctac 120
ggtggttctg cacgtgcatt cgaccagatc gataacgcgc cagaagaaaa agctcgtggt 180
atcaccatca acacttctca cgttgaatat gacaccccga ctcgccacta cgcacacgta 240
gactgcccag gccacgccga ctatgttaaa aacatgatca ccggtgctgc gcagatggac 300
ggcgcgatcc tggttgttgc tgcgactgac ggccctatgc ctcagactcg tgagcacatc 360
ctgctgggtc gtcaggttgg cgttccttac atcatcgtat tcctgaacaa atgcgacatg 420
gttgatgatg aagagctgct ggagctggta gaaatggaag ttcgtgaact tctgtctcag 480
tacgacttcc caggcaatga tactccaatc atccgtggtt ctgctctgaa agcgctggaa 540
ggcgaagctg agtgggaagc taagatcgta gaactggctg aaactctgga ttcttacatc 600
ccagaaccag aacgtgctat cgacaagcca ttcctgctgc caatcgaaga cgtattctca 660
atctctggcc gtggtactgt tgttaccggt cgtgtagagc gcggtatcgt taaagttggt 720
gaagaagttg agattgttgg tatcaaagat accgttaaat caacttgtac cggcgttgaa 780
atgttccgta aactgctgga cgaaggtcgt gcaggcgaga acgttggtgt tctgctgcgt 840
ggtatcaagc gtgaagacat cgaacgtggt caggttctgg ctaaaccagg ttctatcaaa 900
ccacacacca agttcgaatc agaagtttat attctgagca aagatgaagg cggccgtcat 960
actccgttct tcaaaggcta ccgtccacag ttctacttcc gtacaactga cgtgaccggt 1020
accatcgaac tgccagaagg cgtggaaatg gtaatgccag gcgataacat caaaatgatc 1080
gttaccctga tccacccaat cgcaatggac gatggt 1116

<210> 1843
<211> 1129
<212> DNA
<213> Budvicia aquatica ATCC 35567

<400> 1843
gtgtctaaag aaaaatttga acgtacaaaa ccgcacgtta acgttggtac tatcggccac 60
gttgaccacg gtaaaacaac tctgactgct gctatcacca gcgttttagc taaaacttat 120
ggcggtaacg ctcgtgcatt cgatcaaatc gataatgcac cagaagaaaa agcacgtggt 180
atcaccatca acacttctca cgttgagtat gatactcctg ctcgccacta cgcacacgta 240
gactgcccag gacacgccga ctatgtgaaa aacatgatca ccggtgctgc tcaaatggac 300
ggcgcgatct tagttgttgc ggcaactgat ggtcctatgc cacagactcg tgagcacatc 360
ctgttaggtc gtcaggttgg cgttccttac atcatcgtgt tcctgaacaa gtgtgacatg 420
gttgatgacg aagaactgtt agaattagtt gaaatggaag ttcgtgagct tctttctgct 480
tatgatttcc ctggtgacga tactccagtt gttcgtggtt ctgcgctgaa agcgttagaa 540
ggcgaagctg agtgggaagc taagatcatt gaattagccg gatatctgga tagctacatc 600
ccagagccag agcgtgcgat tgaccgtccg ttcctgctgc caatcgaaga cgtattctct 660

atttcaggcc gtggtacagt tgttaccggt cgtgtagagc gcggaatcgt taaagtcggt 720
gaagccgttg agattgttgg tatcaaagat accgtacaaa ctacctgtac tggcgttgaa 780
atgttccgta agttacttga cgaaggccgt gctggtgaga acgttggtgt tctgctgcgt 840
ggtactaagc gtgaagaaat cgaacgcggt caagtactgg ctaagccagg ttcaatcaac 900
ccgcacacca actttgtatc agaagtttat attctgagca aagatgaagg tggtcgtcat 960
actccattct tcaaaggcta ccgtccacag ttctacttcc gtacaactga cgtgaccggt 1020
actatcgaac tgccagaagg cgtagagatg gtgatgcctg gtgacaacat tcagatgact 1080
gtaactctga ttgcaccaat cgcgatggac gaaggtttac gcttcgcta 1129

<210> 1844
<211> 810
<212> DNA
<213> Abiotrophia adiacens ATCC 49175

<400> 1844
atattcataa tgcattacaa gttgtgaaaa caacaagtga cggaagtgaa aagactgtta 60
cattggaaac tgctgtagaa ttaggggatg gtgcagttcg tacgattgcc atggaatcta 120
cagatggttt gcaacgtggc atgaaagtag tggacttagg acgcacaatt agcgttcctg 180
tgggacctga aacattaggt cgtgtattca acgttttagg agatacaatc gacttgaaag 240
aaccattccc agaagacttt acaagacatg aaatccataa accagcacca aaatttgaag 300
aattaaacag tcaatatgaa attctacaaa cagggattaa agttattgac cttttagcac 360
cttatcttaa aggtggtaaa atcggtttat tcggtggtgc cggtgtaggg aaaaccgtat 420
taattcaaga attaattcat aatatcgctg aagaacttgg tggtatttca gtatttacag 480
gggtagggga acgtactcgt gaagggaatg acctttacca tgaaatgcaa gaatcaggcg 540
tatctgctaa aacagcgatg gtgtttgggc aaatgaacga accaccagga gctcgtatgc 600
gtgtagcact aacagggtta actattgcgg aatacttccg tgatatggaa aaacaagacg 660
tgcttttatt catcgataac atttatcgtt tcacgcaagc aggttcagaa gtgtcagcgt 720
tacttggtcg tatgccttct gccgtagggt atcaaccaac attagcgaca gaaatgggtc 780
aattacaaga acgtatcagt tcaactaaag 810

<210> 1845
<211> 815
<212> DNA
<213> Arcanobacterium haemolyticum ATCC 9345

<400> 1845
tgctctgcca gaaattaaca acgccctcct caccgaagta gacctctccg gccaaggcga 60
aggcgaaagc gttctcaaga tgactcttga ggttgctcag cacctcggcg ataacatcgt 120
ccgtaccatc gccatgaagc caaccgacgg tctggttcgc ggcgccaccg ttatcgatac 180
cggcgcccca atcaccgtgc cagttggcga cgcaactaaa ggtcatgttt tcaacgtgac 240
cggtgatgtc ctaaacttgg gcgaaggcga aacccttgac gtcaaggaac ggtggccaat 300
ccaccgcaag gctccacagt tcgacgaact cgaaccggaa accaagatgt tcgaaacagg 360
catcaaggtg atcgatctcc tcaccccata cgtacagggc ggcaagatcg gtctgtttgg 420
cggtgctggt gttggtaaga ccgttcttat ccaggaaatg atccagcgtg ttgcacagga 480
tcatggcggt gtgtccgtgt tcgcgggtgt gggtgaacgt acccgtgaag gtaacgatct 540
tatccacgaa atggaagatg cgggcgttct tgataagacc gcgcttgtgt tcggccagat 600
ggatgaaccg ccaggggttc gtttgcgtat tgcactttcc ggcctgacca tggcggaata 660
cttccgtgac gtgcaaaacc aggacgtgct tttgttcatc gataacatct tccgcttcac 720
ccaggcaggt tcggaagtgt ccacgttgct tggccgtatg ccatcagcag tgggctacca 780
gccgaccttg gcagatkaaa tgggcgcatt gcagg 815

<210> 1846
<211> 1073
<212> DNA
<213> Basidiobolus ranarum ATCC 24670

<400> 1846
accttcctcc tatcttgaah gccctggagg tccaaaacca cagctctcgy ttagttttag 60
aggtgtccca gcatttgggt gaaaacaccg ttcgtactat tgctatggac ggtactgaag 120
gattggttcg tggtcaaaat gtcgtagata ccggatatcc tattagagtt cctgtcggtc 180
ctgaatgttt gggtcgtatc atgaacgtta ttggcgagcc tgttgatgag cgcggyccta 240
tcaagaccaa gaagcttgca cccatccacg cttctccccc cgagttcgty gaccaatcca 300
ccacccccga aatcttggag actggtatta aggttgtcga tttgttggcc ccttacgctc 360

gtggtggtaa gatcggtctt ttcggtggtg ccggtgtcgg taagactgtg tttatccagg 420
agttgatyaa caacgttgcc aaggcccacg gtggttactc cgtgttcgct ggtgttggtg 480
agcgtactcg tgagggtaac gatttgtacc acgagatgat tcaaactggt gtcatcaagc 540
ttgatggcca atccaaggct gcccttgtct acggmcaaat gaacgagccc ccaggtgctc 600
gtgcccgmgt cgctttgacc ggtcttaccg ttgctgaata cttccgtgat gaggaagghc 660
aagatgtgtt gctcttcatt gacaacattt tccgtttcac ccaagctggt tctgaagtgt 720
cygccttgtt gggtcgtatc ccctccgctg tcggttacca acccaccttg gccaccgata 780
tgggtgtcat gcaagagcgt attaccacca ccaagaaggg ttccattacc tctgtccagg 840
ccatttacgt ccctgctgat gatttgaccg atcccgctcc tgccactact tttgcccatc 900
ttgacgccac caccgtgttg tctcgttcca tctctgagtt gggtatttac cccgctgtcg 960
atcccctcga ctccaagtct cgtatgttgg atccycgtat tgtcggtgaa gagcactacg 1020
acatcgccac tggtgttcag aagattctcc artcttacaa gtctctccag gat 1073

<210> 1847
<211> 480
<212> DNA
<213> Blastomyces dermatitidis ATCC 56220

<400> 1847
tgtctttatc caggagttga ttgtacgtct tgcctcaccc tttgggtatt ttgcgaatac 60
taattatagt agaacaacat tgccaaggct cacggtggtt actctgtctt cactggtgtc 120
ggtgaacgta ctcgtgaggg taacgatttg taccacgaaa tgcaggaaac tggtgtcatt 180
cagctcgagg gtgaatccaa ggtcgccctc gtgttcggtc agatgaacga gccccctggt 240
gcccgtgccc gtgtcgctct tactggtttg accattgccg agtacttccg tgacgaggag 300
ggtcaagatg tgcttctctt cattgacaac attttccgtt tcactcaggc cggttctgag 360
gtgtctgccc ttttgggtcg tatcccctct gccgtcggtt accagcccac tctcgccgtc 420
gacatgggtg tcatgcagga gcgtattacc accaccacca agggttccat cacctccgtc 480

<210> 1848
<211> 566
<212> DNA
<213> Blastomyces dermatitidis ATCC 14112

<400> 1848
tgtcttcatt caggagttga ttgtacgtcc cttcctctct acaaatgacg ggcgaggaaa 60
atttttggct ttttctaata gctcgttata gaacaacatt gccaaagccc acggtggtta 120
ctccgttttc actggtgtcg gcgagcggac ccgtgaagga aacgatttgt accacgagat 180
gcaggaaacc cgtgttatcc agctcgatgg cgagtctaag gtcgcactcg tcttcggtca 240
gatgaacgag ccccccggag cccgtgcccg tgttgccctc actggcctga ccattgctga 300
atatttccgt gacgaggaag gtcaagacgg tatgtattca tataaattac tccgggcaaa 360
ttgactcaga accgcactca ctcacacata tattagtgct tctctttatc gacaacattt 420
tccgcttcac ccaggccggt tccgaagtgt ccgccctgct tggtcgtatt ccctccgccg 480
tcggttacca acccactctc gccgtcgaca tgggtggtat gcaggaacgt atcacaacca 540
ccaccaaggg ctccattacc tycgtg 566

<210> 1849
<211> 817
<212> DNA
<213> Campylobacter coli ATCC 43479

<400> 1849
aatgaagcca ttgttgtaaa ttttgaaagt gaaggcaaaa aacaaaaact tgttttagaa 60
gtagcagcac acttgggcga taatagagtt agaactattg ctatggatat gacagatggc 120
ttggtaagag gacttaaagc agaagctttg ggtgctccta ttagcgttcc tgtgggtgaa 180
aaagttttag gaagaatttt taatgttacg ggagatttga tcgatgaagg tgaagaaatt 240
tcttttgata aaaaatgggc aattcataga gatccaccag cttttgaaga tcaaagcaca 300
aaaagtgaga tttttgaaac agggattaaa gttgtggatt tacttgctcc ttatgcaaaa 360
ggtggtaaag taggtctttt tggtggtgca ggtgttggta aaactgttat tattatggag 420
cttattcaca atgttgcatt taaacatagc ggctattctg tatttgcagg tgtaggtgag 480
agaactcgtg aaggaaatga cctttataat gaaatgaaag aaagtaatgt tttagacaaa 540
gttgctctat gttatggaca aatgaatgaa ccaccagggg caagaaatcg tattgcttta 600
acaggtttaa caatggctga gtattttaga gatgaaatgg gtcttgatgt gcttatgttt 660
attgataata tctttagatt ttcacaatca ggttctgaaa tgtcagcact tttaggaaga 720

attccatcag ctgtgggtta tcaaccaacc ctagcaagtg aaatgggtaa attccaagaa 780
agaattactt caactaaaaa aggatcaatt acttcag 817

<210> 1850
<211> 775
<212> DNA
<213> Campylobacter fetus subsp. fetus ATCC 25936

<400> 1850
aaggcaacac gcataaactt attttagaga ctgctgcaca ccttggagat aatcgtgtaa 60
gaactatcgc tatggatatg agcgaaggac ttacaagagg gttagatgct atagcgcttg 120
ggtcgcctat cagtgttcct gttggagaaa aagttttagg aagaatattc aacgtaattg 180
gtgatcttat agacgaaggc gaagaagaaa aatttgataa aaaatggtcg attcatagag 240
atccgccggc atttgaagat caaagcacaa aaagtgaaat ttttgaaaca ggtataaaag 300
tcgtagatct tttggctcct tatgcaaaag gcggtaaagt tggactattt ggcggtgccg 360
gcgttggtaa aacagttatc attatggaac ttatccacaa cgttgcattc aaacacagcg 420
gctattcggt atttgccggt gtcggtgaaa gaacaagaga gggtaacgat ctttataatg 480
aaatgaaaga atccggcgtt ttggataaag ttgccttatg ttatggacaa atgaatgaac 540
cgccgggtgc aagaaaccgt atagcgctta ctggtcttac aatggctgag tattttcgtg 600
acgagatggg actagatgtt cttatgttta tcgataacat cttccgtttc tcacaatcag 660
gctcagagat gtcggctctt cttggacgta tcccaagtgc ggttggttat caaccaacgt 720
tagctagcga aatgggaaga cttcaagaaa gaatcacatc aactaaaaaa ggttc 775

<210> 1851
<211> 793
<212> DNA
<213> Campylobacter fetus subsp. venerealis ATCC 33561

<400> 1851
cgaagctatt gaagtaaatt ttacagtaga aggcaacacg cataaactta ttttagagac 60
tgctgcacac cttggagata atcgtgtaag aactatcgct atggatatga gcgaaggact 120
tacaagaggg ttagatgcta tagcgcttgg gtcgcctatc agtgttcctg ttggagaaaa 180
agttttagga agaatattca acgtaattgg tgatcttata gacgaaggcg aagaagaaaa 240
atttgataaa aaatggtcga ttcatagaga tccgccggca tttgaagatc aaagcacaaa 300
aagtgaaatt tttgaaacag gtataaaagt cgtagatctt ttggctcctt atgcaaaagg 360
cggtaaagtt ggactatttg gcggtgccgg cgttggtaaa acagttatca ttatggaact 420
tatccacaac gttgcattca aacacagcgg ctattcggta tttgccggtg tcggtgaaag 480
aacaagagag ggtaacgatc tttataatga aatgaaagaa tccggcgttt tggataaagt 540
tgccttatgt tatggacaaa tgaatgaacc gccgggtgca agaaaccgta tagcgcttac 600
tggtcttaca atggctgagt attttcgtga cgagatggga ctagatgttc ttatgtttat 660
cgataacatc ttccgtttct cacaatcagg ctcagagatg tcggctcttc ttggacgtat 720
cccaagtgcg gttggttatc aaccaacgtt agctagcgaa atgggaagac ttcaagaaag 780
aatcacatca act 793

<210> 1852
<211> 825
<212> DNA
<213> Campylobacter gracilis ATCC 33236

<400> 1852
ggactattta ccgaagatta acgaagctat cgaggttaaa tttgacgtcg agggcgctca 60
tcgcaggctg atcctagagg tagccgcgca ccttggagac aatcgcgtcc gcacgatcgc 120
tatggatatg agcgatggac ttaggcgagg gcttgaggcc gtcgctttgg gcgcgcctat 180
tacggtgcct gtgggcgaga aagttttggg tagaattttt aatgttacgg gcgatctgat 240
cgacgaaggc gaggatgaaa aatttgaaac ccgctggtcg atccacagag atccgcctag 300
ctttgaaaat caaagcacga agagtgaaat ttttgaaacc ggcattaagg tagtcgatct 360
gctcgcccct tatgcaaagg gcggtaaggt aggactattc ggcggtgctg gcgtcggtaa 420
gaccgtcatc atcatggaac tgattcacaa cgtcgctttc aaacacagcg gctactccgt 480
atttgcgggt gtcggcgagc gaacgagaga gggaaacgac ctttataacg agatgaaaga 540
atcgggcgtt ttggataaag tcgccttgac ctatggtcag atgaacgaac cgccgggagc 600
gagaaaccgt atcgcgctaa ccggtcttac gatggccgag tatttccgcg acgagctagg 660
gcttgacgtt ttgatgttta ttgataatat cttccgcttc tcgcagtcgg gttcggagat 720
gtccgcgctt ttaggacgaa ttccgtccgc ggtcggttat cagcctacgc ttgccagcga 780

aatgggtaaa ttacaggagc gcattacttc tactaagaag ggctc 825

<210> 1853
<211> 818
<212> DNA
<213> Campylobacter jejuni subsp. jejuni ATCC 33560

<400> 1853
tttacctcaa attaatgaag caattgttgt aaattttgaa agcgaaggaa aaaaacataa 60
acttgtttta gaagtagcag ctcatttagg agataataga gttagaacta ttgctatgga 120
tatgacagat ggtttggtaa ggggcttaaa agctgaggct ttaggtgctc ctattagtgt 180
tcctgttggt gagaaagttt taggaagaat tttcaatgtt actggagatt tgatcgatga 240
aggtgaagaa atttcttttg ataaaaaatg ggcaattcat agagatccgc cagcttttga 300
agatcaaagc acaaaaagtg agatttttga aacagggatt aaagttgtag atttgcttgc 360
tccttatgca aaaggtggta aagtaggtct ttttggtggt gcaggtgttg gtaaaactgt 420
tattattatg gagcttattc acaatgttgc atttaagcat agcggctatt ctgtatttgc 480
aggtgtgggt gagagaactc gtgaaggaaa tgacctttat aatgaaatga aagaaagtaa 540
tgttttagac aaagttgctc tatgttatgg acaaatgaat gaaccaccag gagcaagaaa 600
tcgtattgct ttaacaggtt taacaatggc tgagtatttt agagatgaaa tgggtcttga 660
tgtgcttatg tttattgata atatctttag attttcacaa tcaggttctg aaatgtcagc 720
acttttagga agaattccat cagctgtggg ttatcaacca accctagcaa gtgaaatggg 780
taaattccaa gaaagaatta cttcaactaa aaaaggct 818

<210> 1854
<211> 830
<212> DNA
<213> Enterococcus cecorum ATCC 43198

<400> 1854
attacctgat atcaacaacg ccttattggt ctataaaaat gatgaacaaa aaagtaaaat 60
tgtgctagaa gctgccttag aattaggtga tggcatcatt cgtacaattg ccatggaatc 120
aacggatggt ttacaacgtg ggatggaagt tgtcgatact ggtaaaccaa tttcagttcc 180
agttggtaaa gaaacgctag gacgtgtctt taacgtttta ggggatacga ttgatatgca 240
agaaccattt gcacaagatg cagatcgttc tgcaattcat aaagctgcac caaaatttga 300
agacttaagt acaagtactg aaattttaga aacagggatt aaagttatcg acttattagc 360
accatattta aaaggtggta aagtcggtct attcgggggt gccggagtag gtaaaaccgt 420
tttaatccaa gaattaatcc ataatattgc acaagaacat ggtgggattt ctgtatttac 480
cggtgttggt gaacgtacac gtgaaggaaa tgacttgtat catgaaatgc gtgattcagg 540
agttattgaa aaaactgcca tggtgtttgg tcaaatgaac gaaccacctg gagctcgtat 600
gcgtgttgct ttaactgggt taacgattgc tgaatatttc cgtgatgtag aaggacaaga 660
tgtgttgcta tttattgata acatcttccg tttcactcaa gcgggttctg aagtatcagc 720
cttgcttggt cgtatgccat ctgccgtggg ttatcaacct acattggcta cagaaatggg 780
tcaattacaa gaacgtatca cttcaactaa gaagggctct atcacttcta 830

<210> 1855
<211> 823
<212> DNA
<213> Enterococcus columbae ATCC 51263

<400> 1855
tctttaccag atatcaataa tgcgcttatt gtctataaaa atgatgaaca aaaaagtaaa 60
atcgtgcttg aagctgcttt agagctagga gatggcatta ttcgtacgat tgcaatggaa 120
tcaactgatg gattgcaacg tggaatggaa gttttcgata caggtaagcc aatttcagta 180
ccagtaggtc gtgaaacatt aggtcgtgta tttaatgttt taggtgatac cattgatacg 240
caagaagctt ttcctgctga tgcgaatcgt gatgcgattc ataaatcagc tccagctttt 300
gaagaattaa gtacaagtac tgaaatccta gaaacaggga ttaaagttat cgacttacta 360
gcaccatact taaaaggtgg gaaagttggt ctattcggtg gtgccggtgt aggtaaaacc 420
gtattaattc aagaattaat tcataatatc gcccaagaac atgggggtat ttcagtattt 480
accggtgttg gtgaacgtac acgtgaagga aatgacttgt atcacgaaat gcgtgattca 540
ggcgttatcg aaaaaactgc tatggtgttt gggcaaatga acgaaccacc tggagcacgt 600
atgcgtgttg cgctaactgg actaactatt gcggaatact tccgtgatgt tgaaggccaa 660
gacgtattgc tatttattga taatatcttc cgttttactc aagcaggttc tgaagtttct 720
gccttacttg gtcgtatgcc ttctgcggta ggttatcaac ctactttggc tactgaaatg 780

ggtcaattgc aagaacggat tacatcaacg aagaaaggtt cga 823

<210> 1856
<211> 826
<212> DNA
<213> Enterococcus dispar ATCC 51266

<400> 1856
ttaccagaca ttaataatgc cttggttgtc tataaaaatg acgaacaaaa aaccaagatt 60
gtattagaag ctgccttaga actaggagat ggtgtgattc gaactatcgc catggaatct 120
actgatggct tacaacgggg aatggaagtt gtcgatactg gcagttccat ttctgtaccg 180
gtaggaaaag aaacattggg tcgtgtattt aacgttttag gaaatacaat tgacttagaa 240
gaacctttc cagcggatgc taaacgtagt ggtatccata aaaaagcgcc tgattttgat 300
gaattaagca ctagtacaga aattttagaa acagggatta aagttattga cctattagcc 360
ccttatttaa aaggtggtaa agtcggatta ttcggtggtg ccggagttgg taaaaccgtt 420
ttaattcaag aattaattca taatattgcc caagaacatg gtgggatttc tgtttttact 480
ggtgttggtg aaagaacacg tgaaggtaat gacttgtatt atgaaatgaa agaatctggc 540
gttatcgaaa aaactgccat ggtatttggt caaatgaatg agccacctgg tgcccggatg 600
cgggttgctt taaccggact taccattgcg gaatacttcc gggacgttga aggacaagat 660
gtattgctct ttatcgataa tattttccgt tttacccaag ctggttcaga agtatctgcc 720
ttattaggac ggatgccctc tgccgttggt tatcaaccaa ctttggctac tgaaatggga 780
caacttcaag aacggattac ctcaacgaaa aaaggttcta ttacat 826

<210> 1857
<211> 814
<212> DNA
<213> Enterococcus malodoratus ATCC 43197

<400> 1857
tccttaccag acatcaacaa tgcgttgatt gtttacaaaa aaaataaaac aaaagttgtt 60
cttgaagctg ctttggaact tggtgatggt gttatccgca cgatctctat ggaatcaaca 120
gatggcttgc aacgtggaat ggaagttgtc gatacaggca aaccaatctc agttcccgtt 180
ggtaaagaaa ctttaggtcg tgtgtttaac gtattaggtg aaacaatcga caaagaagcg 240
ccttttccag aagatgcagt aaaaagcggt attcataaaa aagcgccggc ttttgaagaa 300
cttagtacca gtaatgaaat tttagaaaca gggatcaaag ttatcgactt attagctcct 360
tacttaaagg gtggtaaagt cggactattt ggtggtgccg gtgttggtaa aaccgtcttg 420
atccaagaat tgattcataa tatcgcccaa gaacacggtg gtatttcagt gtttacgggt 480
gttggtgaac gtactcgtga agggaacgac ctttattatg aaatgaagga atcaggcgtt 540
attgagaaaa ctgccatggt gtttggacaa atgaacgagc cgccaggtgc gcgtatgcgt 600
gttgccttga ctggtttgac attggctgaa tatttccgag atgaagaagg acaagatgtg 660
ctgttgttta tcgacaacat cttccgtttc actcaagccg gttctgaagt ttctgccttg 720
cttggccgga tgccttcagc cgttggctac caaccaactt tggcaactga aatgggtcaa 780
ttgcaagaac gaatcacttc aacgaagaag ggct 814

<210> 1858
<211> 791
<212> DNA
<213> Enterococcus mundtii ATCC 43186

<400> 1858
cgcattagtt gtttataaaa atgatgagca aaaatcaaaa gttgttcttg aagcagcatt 60
agaattaggt gacggtgtga tccgtacgat cgcaatggaa tcgacggatg gactacaacg 120
tggaatggaa gtcatcgaca caagcaaagc gatctctgta ccagttggaa cagaaacatt 180
aggtcgtgtg ttcaacgtgt taggtgaaac aatcgatttg gaagcaccat ttccagagga 240
tgcccaaaga agcgagatcc acaagaaagc accaaatttt gatgaattaa gcacaagtac 300
agagattctt gaaactggga tcaaagtcat tgacttatta gcaccttatt taaaaggtgg 360
gaaagttgga ttgtttgggg gtgccggtgt tggtaaaacc gtactgatcc aagaattgat 420
ccataatatc gcccaagaac atgggggaat ctcagtgttt accggtgtag gggaacgtac 480
ccgtgaagga aacgatctgt attacgaaat gaaagattca ggcgtaatcg aaaaaacagc 540
gatggtgttt ggacaaatga atgagccacc aggtgctcgt atgcgtgtcg cactaactgg 600
attgacgatt gcggaatatt tccgtgatgt cgaaggacaa gacgtgctct tatttattga 660
taatattttc cgtttcaccc aagcaggttc agaagtatct gccttactag gacgtatgcc 720
atcagcggtt ggttatcaac caaccttagc gactgaaatg ggacaactcc aagaacggat 780

cacttcaacg a 791

<210> 1859
<211> 817
<212> DNA
<213> Enterococcus raffinosus ATCC 49427

<400> 1859
tccttaccag acatcaacaa tgcgttgatt gtttataaaa aagataaaac aaaagttgtt 60
cttgaagctg ctttggaact tggtgatggt gttattcgca caatcgccat ggaatcaacg 120
gatggattac aacgtggaat ggaagttgtc gatactggca agcctatttc tgttccagta 180
ggaaaagaaa ctctaggtcg tgtatttaat gtattaggtg aaacaatcga caaggaagcg 240
ccttttccag aagatgcaga aaaaagtggt attcacaaga aagcaccaac tttcgaagaa 300
cttagcacaa gtaatgagat cttagaaaca ggaatcaaag ttattgactt gttagctcct 360
tacttaaaag gtggtaaagt tggattattt ggtggtgccg gtgttggtaa aacagtcttg 420
attcaagagc taattcataa tatcgctcaa gaacatggtg gtatttctgt gtttactggt 480
gttggtgaac gtactcgtga agggaacgac ctttattatg aaatgaaaga ttctggtgtt 540
attgagaaaa ctgctatggt gttcggtcaa atgaacgagc cgccaggtgc acgtatgcgt 600
gttgccttaa ctggtttaac cttagccgaa tacttccgtg atgaagaagg acaagatgtg 660
ttgctattta ttgacaacat tttccgtttc actcaagccg gatcagaagt ttctgcctta 720
cttggccgta tgccgtcagc agttggttac caaccgactt tagcaactga aatgggtcaa 780
ttacaagaac gtattacgtc gacgaaaaaa ggttcaa 817

<210> 1860
<211> 852
<212> DNA
<213> Globicatella sanguis ATCC 51173

<400> 1860
cctgacattc ataatgcatt aattgtaacg aacgctgata tggcggatgt aatgcaagaa 60
aatatttcgg atgaagaaaa attattaacc ttagaagttg cactggattt aggtcatgga 120
atggtccgga caattgcgat ggaatcaacc gatggtttgg aacgcggcat gacagttgtg 180
gattatttaa caccgattaa agtgccagta ggcgaagcca ctttaggtag agtattcaat 240
gttttaggtg agacaattga tgaactagaa ccggttggcg acgatgttga actcaaaagt 300
attcatcgtg aagcccctaa atatgaggac ttagataata gttttcatgt tttagaaacc 360
ggaattaagg tcatcgattt attagctcct tatattaaag ggggaaaaat cggtttattc 420
ggtggtgccg gagtgggtaa aacggtctta attcaagaat taattcataa tattgcagaa 480
caattaggag gtatctcagt tttcactggg gttggagaac gtacccgtga agggaatgac 540
ctcgtttttg aaatgcgaga gtcaggtgta agcaagaaga cggccatggt tttcggtcaa 600
atgaatgaac cacctggagc acgtatgcgt gttgtcttaa caggacttac aatggcggaa 660
tatttccgtg acgaattgaa acaagacgtc ttattattta ttgataatat ttatcgtttt 720
actcaagcag gttccgaagt gtcagcctta ttaggtcgta tgccttcagc agtagggtat 780
caaccaactt tagcaagtga aatgggacaa atgcaagaac gtattacgtc wacgaagcrc 840
ggttccatta ca 852

<210> 1861
<211> 828
<212> DNA
<213> Lactococcus garvieae ATCC 49156

<400> 1861
gcgcgactct tcctgagatt aataacgcac tcatcgttta caaagatgta gacggcgtta 60
aaactaaaat cgtccttgaa gtggcgttgg aacttggtga tggtgccgta cgtaccatcg 120
ctatggaatc aactgatggc ttgacacgtg gacttgaagt tctcgataca ggtaaagcaa 180
tcagcgtacc tgttggtcaa gaaacacttg gacgtgtctt caatgtactt ggagatgcta 240
ttgatggagg ggaagcattt gctgaaaatg cagaacgcag ccctatccat aaaaaagccc 300
catcttttga tgaactttca acagcaaatg aaattctggt gacagggatt aaagttattg 360
acttgcttgc cccatacctt aaaggtggta agattgggtt gttcggtggt gccggagttg 420
gtaaaaccgt ccttatccaa gagttgattc acaatattgc ccaagaacac ggtggtattt 480
ccgtatttac tggtgttggg gaacgtacac gtgaagggaa tgacctttac tgggaaatga 540
aagaatcagg cgttatcgaa aaaacagcca tggtcttcgg tcaaatgaat gaaccacctg 600
gagcacgtat gcgtgttgct cttactggtt tgacaattgc tgaatatttc cgtgatgtag 660
aaaaacaaga cgttttgctt ttcattgata atatcttccg tttcacccaa gccggttcag 720

aagtatctgc cctcttagga cgtatgccat cagccgttgg ttaccaacct acgcttgcaa 780
ctgaaatggg tcaacttcaa gaacgtatca cttcaacaaa acaaggtt 828

<210> 1862
<211> 828
<212> DNA
<213> Lactococcus lactis ATCC 11454

<400> 1862
aattgcctga rattaacaat gccttgattg tctacaaaga tgtcaatggc ctaaaaacaa 60
aaattactct tgaagttgct ttggaacttg gtgatggtgc agttcgtaca atcgctatgg 120
aatctactga tggcttgact cgtggacttg aagtccttga tacaggtaaa gcagtcagcg 180
ttcctgttgg ggaagccact cttggtcgtg tttttaacgt tcttggtgat gttattgacg 240
gtggggaaga atttgctgct gatgcagaac gtaatcctat ccataaaaaa gctccaacat 300
ttgacgaatt gtcaactgca aacgaagttc tcgtaactgg gattaaagtt gtcgatttgc 360
ttgcacctta ccttaaaggt ggtaaagttg gacttttcgg tggtgccgga gttggtaaaa 420
ccgtccttat tcaagaattg attcacaaca tcgcccaaga acacggaggt atttctgtgt 480
ttaccggtgt tggggaacgt actcgtgaag ggaatgacct ttactgggaa atgaaagaat 540
caggcgttat tgaaaaaact gccatggtct ttggtcaaat gaatgaacca ccaggagcac 600
gtatgcgtgt tgcccttact ggtttgacaa ttgctgaata tttccgtgat gttcaaggtc 660
aagacgtact gcttttcatt gacaacatct tccgtttcac acaagctggt tcagaagttt 720
ctgccctttt gggacgtatg ccttctgccg ttggttacca accaacactt gctactgaaa 780
tggggcaatt gcaagaacgt atcacttcta ctaagaaggg ttctgtta 828

<210> 1863
<211> 825
<212> DNA
<213> Listeria ivanovii ATCC 19119

<400> 1863
cttacctgaa atctacaacg ccctagttat tgaatataaa tctgatgcag aagaagcacc 60
aactagccaa cttactttag aagtagccat tcaattaggt gatgacgttg ttcgtacaat 120
tgcaatggca tcaactgatg gtgttcaaag aggtatggaa gttattgata ctgggagccc 180
aatcacagtt ccagttggta cagtaacact tggtcgtgta tttaacgtat taggaaacac 240
tatcgatttg gatgagccac ttccaagcga tatcaagcgt aataaaattc accgtgaagc 300
accaacattt gaccaattag caacaactac tgaaattctt gaaacaggaa taaaagttgt 360
agacttgcta gccccatatt taaaaggtgg taaaattggt ttgttcggcg gagcgggtgt 420
tggtaaaacc gttttaatcc aagaacttat tcataatatc gctcaagaac atggtggtat 480
ttctgtgttc gctggtgttg gagaacgtac tcgtgaaggg aacgatcttt actttgaaat 540
gaaagactct ggtgtaattg aaaaaactgc catggtattc ggtcaaatga acgaaccacc 600
aggtgctcgt atgcgtgtag ctttaacagg tcttacaatc gctgaatatt tccgtgatga 660
agaacaccaa gatgtacttc tattcattga taatattttc cgctttactc aagctggttc 720
agaggtttcg gctttactag gtcgtatgcc atctgcagta ggttatcaac caactctagc 780
taccgaaatg ggacaattac aagaacgtat tacttctact aatgt 825

<210> 1864
<211> 821
<212> DNA
<213> Succinivibrio dextrinosolvens ATCC 19716

<400> 1864
gtcatattcc agagctttat gacgctctgg aggttaaggg cgatggtaag catcgttcag 60
acctagttct tgaggttcaa cagcagattg gcggtggtgt ggtacgctgc attgccatgg 120
gttcttctga cggtttgagc agaggaattg aggctgtaaa tactggtgcc ggtgttaagg 180
ttccagttgg tcgtgagacc ctaggacgta ttatgaacgt tttaggtcag cctgtagatg 240
agagaggtcc tatcggacag aaagaggatt gggaaattca ccgtccagct cctacctatg 300
ctgagcagtc atcaactaca gaaattctag aaaccggtat taaggttatg gaccttatct 360
gcccatttgc taagggtggt aaagttggtc tgttcggtgg tgccggtgtg ggtaagacag 420
ttaacatgat ggagcttatc aataacattg ctaaggctca ctcaggtcta tctgtattta 480
ccggtgttgg tgagcgtact cgtgagggta acgacttcta ccacgaaatg caggaatcaa 540
aggttatcga taaggtatca atgatttacg gtcagatgaa cgagcctcca gggaaccgtc 600
tacgtgttgc tctgacaggt ctgactgttg ctgagaagtt ccgtgacgaa ggtctggatg 660
tgcttctgtt catcgataac atctatcgtt atacactggc tggtacagag gtatctgctc 720

tgttaggccg tatgccttca gctgtgggtt accagcctac actggctgag gaaatgggtg 780
tattacagga gcgtattgct tcaactaaga aaggttctat t 821

<210> 1865
<211> 822
<212> DNA
<213> Tetragenococcus halophilus ATCC 33315

<400> 1865
tgatacttta ccagatatca ataatgcatt agccgtatat aaaaatgatg agaacaagac 60
gcgtgttgta ttggaagcta ctttagaact tggagatggg gtaattcgtg ccatttctat 120
ggggtctact gacggcttgc aacgtggcat ggaagttgtg gatacacaag aacctatttc 180
tgttccggta ggaaatgata ctttaggtcg tgtatttaat gtgttaggag aaacaataga 240
taatcaggag ccatttcctg aagatgctga aaaaagtggt attcacaaaa aagcccctag 300
ttttgatgaa ttaagtacta gttcggaaat attagaaaca gggatcaaag tgattgattt 360
attagaacct tatctaagag gcggtaaagt cggattgttt ggaggcgccg gtgttggaaa 420
aacggtgcta attcaagaat tgatcaataa tgttgcccaa gaacacgggg gtatttccgt 480
gtttaatggt gtaggtgaac gtactcgtga aggtaatgac ttgtattatg aaatgcagga 540
ttcaggcgtt atcgaaaaaa cagccatggt gtttggtcaa atgaacgaac caccaggtgc 600
tcgtatgcgt gttgctttaa ctggcctaac actggcagaa tattttcgag atgttgaagg 660
tcaagacgta ttattattta ttgataatat tttccgtttt acacaagcag gtaccgaagt 720
ttccgcttta cttggtagaa tgccatctgc tgttggctat caacccacac tagcaactga 780
aatggggcaa ctgcaagaac ggattacgtc aacggataag gg 822

<210> 1866
<211> 818
<212> DNA
<213> Campylobacter fetus subsp. fetus ATCC 25936

<400> 1866
atctcctcag gatckatagg acttgatata gctcttggta taggcggcgt accaaaagga 60
agaatagtcg aaatttatgg gccagaaagc tctggtaaaa caactcttac tttgcattta 120
atagcagaat ctcaaaaagt cggcggagtt tgcgcgtttg tagatgcaga gcatgcactt 180
gatgttaaat atgctaaaaa tttaggcgtt gatacggata acttatatat ttctcaaccg 240
gacttcggag agcaagctct tgatatagta gaaactctag ctagaagcgg cgccgttgat 300
cttatagtaa tagatagcgt agcagctyta acaccaaaaa gcgaaataga aggcgatatg 360
ggagatcagc acgtagggct gcaagcaaga ctcatgagtc aagcacttag aaaattaacc 420
ggagttgtcc ataaaatggg aactacagtt gtatttataa accaaattcg tatgaaaatc 480
ggcgctatgg gctatggcac tcctgaaact actactggcg gaaatgcgct taaattttac 540
gcttcagtta gacttgacgt acgtaaaata gctactttaa aacagagcga tgagccaatc 600
ggaaaccgcg taaaagtaaa agtagtaaaa aacaaagtcg ctcctccttt tagacaagcc 660
gaatttgata tcatgtttgg agaaggtatc agcaaagaag gagagataat agattacggc 720
gtaaaacttg atattatcga taaaagcggc gcttggttta gctatgataa ttcaaaatta 780
ggtcaaggca gagaaaactc aaaagcgttt ttaaaaga 818

<210> 1867
<211> 814
<212> DNA
<213> Campylobacter fetus subsp. venerealis ATCC 33561

<400> 1867
tctcctcagg atckatagga cttgatatag ctcttggtat aggcggcgta ccaaaaggaa 60
gaatagtcga aatttatggg ccagaaagct ctggtaaaac aactcttact ttgcatttaa 120
tagcagaatc tcaaaaagtc ggcggagttt gcgcgtttgt agatgcagag catgcacttg 180
atgttaaata tgctaaaaat ttaggcgttg atacggataa cttatatatt tctcaaccgg 240
acttcggaga gcaagctctt gatatagtag aaactctagc tagaagcggc gccgttgatc 300
ttatagtaat agatagcgta gcagctytaa caccaaaaag cgaaatagaa ggcgatatgg 360
gagatcagca cgtagggctg caagcaagac tcatgagtca agcacttaga aaattaaccg 420
gagttgtcca taaaatggga actacagttg tatttataaa ccaaattcgt atgaaaatcg 480
gcgctatggg ctatggcact cctgaaacta ctactggcgg aaatgcgctt aaattttacg 540
cttcagttag acttgacgta cgtaaaatag ctactttaaa acagagcgat gagccaatcg 600
gaaaccgcgt aaaagtaaaa gtagtaaaaa acaaagtcgc tcctcctttt agacaagccg 660
aatttgatat catgtttgga gaaggtatca gcaaagaagg agagataata gattacggcg 720

taaaacttga tattatcgat aaaagcggcg cttggtttag ctatgataat tcaaaattag 780
gtcaaggcag agaaaactca aaagcgtttt taaa 814

<210> 1868
<211> 824
<212> DNA
<213> Campylobacter jejuni subsp. jejuni ATCC 33560

<400> 1868
gatagcatag gcwcaggttc agttggactt gatcttgctt taggtatagg cggtgttcca 60
aaaggaagaa ttatagaaat ttatgggcct gaaagttcag gtaaaactac tctaactcta 120
cacattatcg cagaatgcca aaaagcaggt ggggtttgtg cttttatcga tgcagaacat 180
gcacttgatg tgaaatatgc taaaaattta ggtgtaaata cagatgattt gtatgtttct 240
caacctgatt ttggagagca agccttagaa attgtagaaa ctatagcwag aagtggtgca 300
gtagatctta twgtagtaga tagcgttgca gcwcttaccc caaaagcaga aattgaaggc 360
gatatgggcg atcarcatgt aggacttcaa gcaagactta tgtctcaagc tctaagaaaa 420
cttacaggta tagttcataa aatgaatacc acagtaattt tcatcaacca aattcgtatg 480
aaaatcggtg ctatgggtta tggtactcct gaaaccacaa caggtggaaa tgcattaaaa 540
ttttatgctt ctgtgcgttt agatgttaga aaagtagcaa ccttaaamca aaacgwagam 600
cctataggaa accgcgttaa agtaaaagta gttaaaaata aagttgctcc tccattcagm 660
caagctgaat ttgatgtgat gtttggagag ggtttaagcc gtgaaggtga attgatcgat 720
tatggtgtaa aacttgatat cgtagataaa agtggtgcgt ggtttttctta taaagataaa 780
aaacttggac aaggtagaga aaattcaaaa gctttcttaa aaga 824

<210> 1869
<211> 388
<212> DNA
<213> Enterococcus avium ATCC 14025

<400> 1869
agaaagttct ggtaaaacaa cggttgcact gcatgcgatt gcagaagttc aaaaacatgg 60
cgggacggca gcctttattg atgccgagca cgcgttggac cctcaatacg cacaacgtct 120
aggtgtaaac attgatgaat tgctgctatc acaaccagat actggggaac aaggcttaga 180
aattgcagat gctttagttt caagtggcgc agtcgatatt atcgttattg actcggtggc 240
cgcgctagtc ccccgtgctg aaatcgatgg cgagatgggt gatgcgcacg ttggtctgca 300
ggctcgtttg atgtcacaag cattgcgcaa gctgtcaggc tctatcaaca aaacaaagac 360
tatcgccgtc tttattaacc aaattcgt 388

<210> 1870
<211> 388
<212> DNA
<213> Enterococcus faecium ATCC 19434

<400> 1870
tgaaagttca ggtaaaacaa cagttgcact acacgctatt gcagaagtac aaaaaaatgg 60
cggaacggcc gctttcattg atgctgagca tgcgttagat ccgcaatatg cacaaaaatt 120
aggtgtgaat atcgatgaac tacttctttc acagcctgac acaggagaac aaggtctaga 180
gatcgctgat gctttagtat caagtggggc tgtagatatc gtagtagtcg attcagttgc 240
tgctttagtt ccacgagcag aaatcgacgg cgaaatgggt gactcacatg tcgggttaca 300
agcacgtttg atgtctcaag cattgcgtaa actctctggt tcgatcaaca aaacaaaaac 360
aatcgctatt ttcatcaacc aaatccgt 388

<210> 1871
<211> 388
<212> DNA
<213> Listeria monocytogenes ATCC 15313

<400> 1871
agagagttcc ggtaaaacaa ctgttgcgct tcatgcaatt gcggaagtac aagcacaagg 60
cggaacagca gcatttatcg atgctgagca tgcgttggat ccggcttatg ctaaaaacct 120
aggtgtaaat attgatgaat tattactatc tcaaccagat acaggagaac aagctttaga 180
gattgctgaa gctttagtta gaagtggtgc agttgatatg ttagtaattg actccgttgc 240

agcacttgta ccacgtgctg aaatcgaagg cgagatgggc gatgctcatg ttggattaca 300
agcacgttta atgtcccaag cattgcgtaa actttctggt gttattaata aatcaaaaac 360
cattgctatt ttcattaacc aaattcgt 388

<210> 1872
<211> 388
<212> DNA
<213> Streptococcus mitis ATCC 49456

<400> 1872
agagtcatct ggtaagacaa cggttgccct tcatgcagtt gcgcaagcac aaaaagaagg 60
tggtattgct gcctttatcg atgcggaaca tgcccttgat ccagcttatg ctgcggccct 120
tggtgtcaac attgacgaat tgctcttgtc acaaccagac tcaggagagc aaggtcttga 180
gattgcagga aaattgattg actcaggagc cgtggatctt gtcgtagtcg actcagttgc 240
ggcccttgtc cctcgtgcgg aaattgatgg agatatcggt gatagccacg ttggtttgca 300
ggctcgtatg atgagccagg ctatgcgtaa acttggtgct tctatcaata aaaccaaaac 360
aattgccatc tttatcaacc aattgcgt 388

<210> 1873
<211> 430
<212> DNA
<213> Streptococcus oralis ATCC 35037

<400> 1873
gaacatgacg ccgacttttt cacgcaattg gttgataaag atggcaattg ttttggtttt 60
attgatagaa gctccgagtt tacgcatggc ctggctcatc attcgagcct gcaaaccaac 120
gtgactgtct ccaatatccc catcaatttc cgcacgaggt acaagggccg caactgagtc 180
gataacgaca aggtcaactg cacctgagtc aatcaatttt ccagcaattt caagaccttg 240
ttcacctgag tctggttgtg acaagagcaa ttcgtcaata ttcacaccaa gggctgcagc 300
ataggctggg tcaagagcat gttccgcatc gataaaggct gcaataccac cttctttctg 360
tgcttgcgca acagcgtgaa gggcaaccgt tgtcttacca gatgattctg gcgcrtacay 420
ttcgatgata 430

<210> 1874
<211> 947
<212> DNA
<213> Aspergillus fumigatus ATCC 64746

<400> 1874
ttgtcgttgt tgctgcctcc gacggtcaga tgtaggtgga acatcttggg aaatacgtcg 60
taaaacacgt cgcttacgtt ttcgcgaata ggccccagac tcgtgagcat ttgctgctcg 120
cccgccaggt tggtgtccag aagatcgttg tcttcgtcaa caaaatcgat gctattgatg 180
atccggagat gctggaactg gtcgaactcg agatgcgtga gctgctgaac agctacggtt 240
tcgagggtga agagactccg atcattttcg gttccgctct ctgtgctctc gaaggacgcc 300
gtgacgacat cggtaaagac agaattgagc agcttatgaa cgctgtcgac acctggatcc 360
ccactcctca gcgtgacctc gacaaacctt tcttgatgtc tgtcgaggaa gtgttctcta 420
tcgccggccg tggtaccgtg gcttctggtc gtgtcgagcg tggtatcttg aagaaggact 480
ctgaggttga gattgttgga ggctccttcg aacccaagaa gaccaaagtc accgacattg 540
aaaccttcaa gaagagctgt gatgaatcgc gtgctggtga caactctggt ctcctcctgc 600
gtggtatccg acgtgaagac gtcaagcgtg gtatggtcat tgctgttccc ggcagcacca 660
aggctcacga caagttcctc gtctccatgt acgtcctgac cgaggcggag ggtggtcgtc 720
gtactggctt cggtgccaac taccgtcccc aagtcttcat ccgtactgca ggtaagttcc 780
cgcacaccgt gtccagatct tccgagagat tagcgatata tgctaatgat tcatcagacg 840
aggctgctga cctcagcttc cctgacggcg accaatctcg cagagttatg cctggtgaca 900
acgtcgagat gatcctgaag acccaccacc ctgttgctgc tgaggct 947

<210> 1875
<211> 923
<212> DNA
<213> Aspergillus versicolor strain WSA-175

<400> 1875

gctgcttccg atggtcaaat gtacgtcaac cttatataca ccctctgata tgacagaatg 60
tcgcctaaca gcacgcgtga actaggcccc aaacccgtga gcacttgctg cttgcccgcc 120
aggtcggtgt ccagaagatt gttgtgttcg tcaacaaggt tgatgccgtc gatgaccctg 180
agatgttgga acttgttgag ctggaaatgc gtgagcttct cagcacttac ggcttcgaag 240
gcgaggagac ccctatcatc ttcggttccg ccctatgcgc cctcgagggt cgccgccccg 300
atatcggtac tgagcgaatt gacagccttc ttgaggccgt tgacacctgg atccctaccc 360
ctcagcgtga cctggacaag cctttcctga tgtctgtcga ggaggtcttc tccattgccg 420
gtcgtggtac cgttgcctct ggccgtgttg agcgtggtct ccttaagaag gacagcgagg 480
tcgagattct cggaggtggt caggtcatga agaccaaggt cactgacatt gagacattca 540
agaagcactg tgacgaatcc cgtgctggtg acaactccgg tcttcttctc cgtggtatcc 600
gccgtgagga tgtcaagcgc ggtatggtta ttgctgctcc cgcctctatc aaggcccaca 660
agaagttcat ggtctccatg tacgtcctca ctgaggcaga aggtggccgt cgcagtggct 720
tcggtgtcaa ctatcgtccc caggcttaca ttcgcactgc tggtaagttt tcaaaacatt 780
cgacctctcg ccttagaaga agaatacctc taacttgtat ttagacgagg cttgcgacct 840
ttctttcccc gatggcgaca tgagccgccg tgtcatgcct ggtgacaacg tggaaatgat 900
cctcaacctc aacaaccctg tcg 923

<210> 1876
<211> 807
<212> DNA
<213> Basidiobolus ranarum ATCC 24670

<400> 1876
catcattgtt gtgtccgcca ctgatggtca aatgcctcaa actcgtgagc atttgttgtt 60
ggctcgccaa gttggtgtcc aacacttggt tgtcttcatc aacaaggttg atgccgttga 120
tgatcctgaa atgttggagt tggtcgagat ggaaatgcgt gatttgcttt cccaatacgg 180
tttccccgga gacaacgtcc ccattatcca gggttccgct ctctgcgctc ttgaggaccg 240
caaccccgag atcggccgta acgccatcat gaagttgatg gaggctgttg atagcagcat 300
ccccacccct gcccgtgatt tggacaaacc tttcctcatg cccgttgaag atgtgttctc 360
catctctggc cgtggtactg ttgccactgg acgtgttgag cgtggtatgg tcaccaaggg 420
tactgaagtt gaaatcgtcg gtatgggcga gcacttcaag accaccttga ccggtattga 480
aatgttccac aaggaattgg acaagggtat ggctggtgac aacatgggtt gcttgcttcg 540
tggtgtcaag cgtgagcaag tccgtcgtgg tatggttatc tgtgcccccg gatccgtcaa 600
gccacataag aagttcatgg ctcagctcta cattctcacc aaggatgagg gaggccgcca 660
cactcccttc gtcaacaact accgcccaca aatgttcttc agaactgttg atgttaccgc 720
catccttaag caccccccctg gtacccccga tgctgatgag aagatggtca tgcccggaga 780
caacgttcaa ctcgagtgcg agctctt 807

<210> 1877
<211> 806
<212> DNA
<213> Campylobacter gracilis ATCC 33236

<400> 1877
agttgtttct gctgcggatg gtcctatgcc tcaaactcgc gagcatatct tgctttctcg 60
tcaagtaggc gttccataca tcgtagtttt cctaaacaaa accgatatgg tcgatgatcc 120
ggatctttta gagttagttg aagaggaagt tagagatctt ttaaaagagt ataaattccc 180
tggcgacgaa accccaatca ttaagggttc tgctcttaag gctcttgagg aagctaaggc 240
cggacaagac ggcgaatggt ctgcaaagat tatggagctt atggacgcgg ttgatagcta 300
tattccaact cctgttcgcg atactgataa agatttcctt cttccgatcg aagatatttt 360
ctcgatttcc ggtcgcggta ccgttgtaac cggtagaatc gaaaaaggta tcgttaaagt 420
tggtgatact atcgagatcg taggtattaa acctactcag actactaccg tcactggcgt 480
tgagatgttt agaaaagaga tggatcaagg tgaagccggc gataatgtag gtgttttatt 540
gcgcggtact aagaaagagg aagtagagcg cggtatggtt ttatgcaaac caaaatcgat 600
cactcctcat actaaatttg agggcgaggt ttatatccta actaaagaag aaggcggacg 660
ccatactcca ttctttaata attatagacc gcagttttac gttcgtacga cagatgttac 720
cggttcgatt actcttcctg aaggaaccga gatggttatg ccgggcgaca acgttaaaat 780
caccgttgag ctaatcgctc cgatcg 806

<210> 1878
<211> 806
<212> DNA
<213> Campylobacter jejuni subsp. jejuni ATCC 33292

<400> 1878
gctgcagatg gccctatgcc acaaactaga gagcacattc ttctttctcg tcaagtaggc 60
gttccatata ttgttgtttt tatgaataaa gcagatatgg ttgatgatgc tgaactttta 120
gagttagttg aaatggaaat tagagaatta ttaagctctt atgatttccc aggcgatgat 180
acacctatta tttctggttc tgctttaaaa gctcttgaag aagctaaagc tggacaagat 240
ggtgaatggt cagcaaaaat tatggatctt atggctgcag ttgatagcta tattccaact 300
ccaactcgtg atactgaaaa agacttcttg atgccaattg aagatgtttt ctcaatttca 360
ggtcgtggta ctgttgttac aggtagaatt gaaaaaggtg ttgtaaaagt aggtgatact 420
atcgaaatcg ttggtattaa agatactcaa acaacaactg taacaggtgt tgaaatgttc 480
agaaaagaaa tggatcaagg cgaagcagga gataacgtag gtgttcttct tcgtggtact 540
aaaaaagaag aagttatccg tggtatggtt cttgctaaac caaaatcaat tactccacac 600
actgacttcg aagctgaagt ttatatctta aataaagatg aaggtggtag acatactcca 660
ttctttaaca actatagacc acagttttat gtaagaacaa ctgatgttac aggttcgatt 720
aaattagctg atggtgttga aatggttatg ccaggtgaaa atgtgagaat tactgtaagc 780
ttgatcgctc cagtagcact tgaaga 806

<210> 1879
<211> 896
<212> DNA
<213> Coccidioides immitis strain WSA-222

<400> 1879
atgtatgcaa ccgagagcac tcccggatct tggtttaaat ggcactaata taagacaggc 60
ctcaaactcg agagcattta cttctcgccc gtcagatcgg tatccaaaaa atcgtcgtct 120
tcgtgaacaa ggttgatgcc atcgaggaca aagagatgtt ggagcttgtt gaattggaga 180
tgcgtgaact cctaaccagc tacggtttcs agggtgaaga aactcccatc atttttggct 240
ctgctctctg tgccctcsaa ggaagacaac ccgagatcgg tgttaccaag attgatgagc 300
tcttgcaggc cgtcgacacc tggattccca ctcctcagcg tgagactgac aagcccttct 360
tgatgtccat tgaggaagtg ttctctattt ccggacgagg aaccgttgtc tccggccgtg 420
tggagcgtgg tatcctcaag aaggactccg aagttgaaat tgtcggcggt tcgcccgagc 480
caatcaaaac caaggttacc gatatcgaaa cctttaagaa gtcttgcgac gagtctcgcg 540
ctggtgataa ctccggcttg ctcctacgag gcgttaagcg tgaagatatt agccgtggca 600
tggtcgtcgc tgtaccagga agtgtcaagg cccatactga attcttagtt tcgctttacg 660
tcctcaccga agctgagggt gggcgcaaat ctggattcag cagcaagtac cgcccacaga 720
tgttcattcg cactgccggt atgtaatact gtgataattt cgttgacatg gtactgattg 780
aattctatag acgaagcggc tcagctcagc tggcccggag aagatcaaga caagatggct 840
atgccaggag acaatatcga aatgatttgc accaccttgc acccagttgc cgccga 896

<210> 1880
<211> 798
<212> DNA
<213> Erwinia amylovora ATCC 14976

<400> 1880
ctggtagttg ctgcgactga cggcccaatg cctcagacyc gtgagcacat cctgctgggt 60
cgccaggttg gcgtgccata catcatcgtg ttcctgaaca aatgtgacat ggttgatgat 120
gaagagctgc tggagctggt tgaaatggaa gtmcgtgacc tgctgtcaca gtacgacttc 180
ccaggcgacg acacgccaat cgtgcryggt tctgcgctga aagcgctgga rggcgaagca 240
gagtgggaag cgaagatcat cgaactggct ggccatctgg ataactacat cccggaacca 300
gagcgtgcga ttgacaaacc gttcctgctg ccaattgaag acgtgttctc catctctggc 360
cgtggtaccg ttgttaccgg tcgtgtagag cgcggtrtsg ttaaagtggg tgaagaagtt 420
gaaatcgttg gtatcaaaga taccgtgaaa tcaacctgta ccggcgttga gatgttccgt 480
aagctgctgg acgaaggccg tgcgggtgag aactgtggta tcctgctgcg cggtatcaag 540
cgcgaagata tccagcgtgg tcaggttctg gcgaagccag gcaccatcaa gccacacacc 600
aagttcgagt cagaagttta tattctgtct aaagacgaag gcggccgtca tactccgttc 660
ttcaaaggct accgtccaca gttctacttc cgtactactg acgtgaccgg gactatcgaa 720
ctgccagaag gcgttgagat ggtgatgcca ggcgacaaca ttcagatggt tgtgaccctg 780
atccacccga tcgccatg 798

<210> 1881
<211> 810
<212> DNA
<213> Salmonella choleraesuis subsp. choleraesuis ATCC 14028

<400> 1881
atcctggttg ttgctgcgac tgacggyccg atgccgcaga cccgtgagca catcctgctg 60
ggtcgtcagg taggcgttcc gtacatcatc gtgttcctga acaaatgcga catggttgat 120
gacgaagagc tgctggaact ggttgaaatg gaagttcgyg aactgctgtc tcagtacgac 180
ttcccgggcg acgacactcc gatcgttcgt ggttctgctc tgaaagcgct ggaaggcgac 240
gcagagtggg aagcgaaaat catcgaactg gctggcttcc tggattctta catyccggaa 300
ccagagcgtg cgattgacaa gccgttcctg ctgccgatcg aagacgtatt ctccatctcc 360
ggtcgtggta ccgttgttac cggtcgtgta garcgcggta tcatcaaagt gggcgaagaa 420
gttgaaatcg ttggtatcaa agagactcag aagtctacct gtactggcgt tgaaatgttc 480
cgcaaactgc tggacgaagg ccgtgccggt gagaacgtag gtgttctgct gcgtggtatc 540
aaacgtgaag aaatcgaacg tggtcaggta ctggctaagc cgggcaccat caagccgcac 600
accaagttcg aatctgaagt gtacattctg tccaaagatg aaggcggccg tcatactccg 660
ttcttcaaag gctaccgtcc gcagttctac ttccgtacta ctgacgtgac tggcaccatc 720
gaactgccgg aaggcgtaga gatggtaatg ccgggcgaca acatcaaaat ggttgttacc 780
ctgatccacc cgatcgcgat ggacgacggt 810

<210> 1882
<211> 888
<212> DNA
<213> Staphylococcus cohnii strain BM10711

<400> 1882
atgaattttt atttagagga gtttaacttg tctattcccg attcaggtcc atacggtata 60
acttcatcag aagacggaaa ggtatggttc acacaacata aggcaaacaa aatcagcagt 120
ctagatcaga gtggtaggat aaaagaattc gaagttccta cccctgatgc taaagtgatg 180
tgtttaattg tatcttcact tggagacata tggtttacag agaatggtgc aaataaaatc 240
ggaaagctct caaaaaaagg tggctttaca gaatatccat tgccacagcc ggattctggt 300
ccttacggaa taacggaagg tctaaatggc gatatatggt ttacccaatt gaatggagat 360
cgtataggaa agttgacagc tgatgggact atttatgaat atgatttgcc aaataaggga 420
tcttatcctg cttttattac tttaggttcg gataacgcac tttggttcac ggagaaccaa 480
aataattcta ttggaaggat tacaaataca gggaaattag aagaatatcc tctaccaaca 540
aatgcagcgg ctccagtggg tatcactagt ggtaacgatg gtgcactctg gtttgtcgaa 600
attatgggca acaaaatagg tcgaatcact acaactggtg agattagcga atatgatatt 660
ccaactccaa acgcacgtcc acacgctata accgcgggga aaaatagcga aatatggttt 720
actgaatggg gggcaaatca aatcggcaga attacaaacg acaaaacaat tcaagaatat 780
caacttcaaa cagaaaatgc ggaacctcat ggtattacct ttggaaaaga tggatccgta 840
tggtttgcat taaaatgtaa aattgggaag ctgaatttga acgaatga 888

<210> 1883
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1883
agccgcttga gcaaattaaa cta 23

<210> 1884
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1884
gtatcccgca gataaatcac cac 23

<210> 1885
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1885
agcgaaaaac accttgccga c 21

<210> 1886
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1886
gacgcccgcg ccaccact 18

<210> 1887
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1887
gacgcccgcg acaccacta 19
<210> 1888
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1888
gacgcccgca acaccacta 19

<210> 1889
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1889
gttcgcaact gcagctgctg 20

<210> 1890
<211> 19
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1890
ttcgcaacgg cagctgctg 19

<210> 1891
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (14)..(14)
<223> n represents a modified base

<220>
<221> modified_base
<222> (14)..(14)
<223> i

<400> 1891
ccggagctgc cgancggg 18

<210> 1892
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1892
cggagctgcc aarcgggg 18

<210> 1893
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1893
ggagctggcg arcggggt 18

<210> 1894
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

Oligonucleotide

<400> 1894
gaccggagct agcgarcg 18

<210> 1895
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1895
cggagctagc aarcggggt 19

<210> 1896
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1896
gaaacggaac tgaatgaggc g 21

<210> 1897
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1897
cattaccatg ggcgataaca g 21

<210> 1898
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1898
ccattaccat gagcgataac ag 22

<210> 1899
<211> 861
<212> DNA
<213> Klebsiella pneumoniae strain 15571

<400> 1899
atgcgttata ttcgcctgtg tattatctcc ctgttagcca ccctgccgct ggcggtacac 60
gccagcccgc agccgcttga gcaaattaaa ctaagcgaaa gccagctgtc gggccgcgta 120

ggcatgatag aaatggatct ggccagcggc cgcacgctga ccgcctggcg cgccgatgaa 180
cgctttccca tgatgagcac ctttaaagta gtgctctgcg gcgcagtgct ggcgcgggtg 240
gatgccggtg acgaacagct ggagcgaaag atccactatc gccagcagga tctggtggac 300
tactcgccgg tcagcgaaaa acaccttgcc gacggcatga cggtcggcga actctgcgcc 360
gccgccatta ccatgagcga taacagcgcc gccaatctgc tactggccac cgtcggcggc 420
cccgcaggat tgactgcctt tttgcgccag atcggcgaca acgtcacccg ccttgaccgc 480
tgggaaacgg aactgaatga ggcgcttccc ggcgacgccc gcgacaccac taccccggcc 540
agcatggccg cgaccctgcg caagctgctg accagccagc gtctgagcgc ccgttcgcaa 600
cggcagctgc tgcagtggat ggtggacgat cgggtcgccg gaccgttgat ccgctccgtg 660
ctgccggcgg gctggtttat cgccgataag accggagctg gcgagcgggg tgcgcgcggg 720
attgtcgccc tgcttggccc gaataacaaa gcagagcgca ttgtggtgat ttatctgcgg 780
gataccccgg cgagcatggc cgagcgaaat cagcaaatcg ccgggatcgg cgcggcgctg 840
atcgagcact ggcaacgcta a 861

<210> 1900
<211> 780
<212> DNA
<213> Klebsiella pneumoniae strain SLK-47

<400> 1900
ctgttagcca ccctgccgct ggcggtacac gccagcccgc agccgcttga gcaaattaaa 60
ctaagcgaaa gccagctgtc gggccgcgta ggcatgatag aaatggatct ggccagcggc 120
cgcacgctga ccgcctggcg cgccgatgaa cgctttccca tgatgagcac ctttaaagta 180
gtgctctgcg gcgcagtgct ggcgcgggtg gatgccggtg acgaacagct ggagcgaaag 240
atccactatc gccagcagga tctggtggac tactcgccgg tcagcgaaaa acaccttgcc 300
gacggcatga cggtcggcga actctgcgcc gccgccatta ccatgagcga taacagcgcc 360
gccaatctgc tactggccac cgtcggcggc cccgcaggat tgactgcctt tttgcgccag 420
atcggcgaca acgtcacccg ccttgaccgc tgggaaacgg aactgaatga ggcgcttccc 480
ggcgacgccc gcgccaccac taccccggcc agcatggccg cgaccctgcg caagctgctg 540
accagccagc gtctgagcgc ccgttcgcaa cggcagctgc tgcagtggat ggtggacgat 600
cgggtcgccg gaccgttgat ccgctccgtg ctgccggcgg gctggtttat cgccgataag 660
accggagctg gcgagcgggg tgcgcgcggg attgtcgccc tgcttggccc gaataacaaa 720
gcagagcgca ttgtggtgat ttatctgcgg gataccccgg cgagcatggc cgagcgaaat 780

<210> 1901
<211> 861
<212> DNA
<213> Escherichia coli

<400> 1901
atgcgttata ttcgcctgtg tattatctcc ctgttagcca ccctgccgct ggcggtacac 60
gccagcccgc agccgcttga gcaaattaaa ctaagcgaaa gccagctgtc gggccgcgta 120
ggcatgatag aaatggatct ggccagcggc cgcacgctga ccgcctggcg cgccgatgaa 180
cgctttccca tgatgagcac ctttaaagta gtgctctgcg gcgcagtgct ggcgcgggtg 240
gatgccggtg acgaacagct ggagcgaaag atccactatc gccagcagga tctggtggac 300
tactcgccgg tcagcgaaaa acaccttgcc gacggcatga cggtcggcga actctgcgcc 360
gccgccatta ccatgagcga taacagcgcc gccaatctgc tactggccac cgtcggcggc 420
cccgcaggat tgactgcctt tttgcgccag atcggcgaca acgtcacccg ccttgaccgc 480
tgggaaacgg aactgaatga ggcgcttccc ggcgacgccc gcaacaccac taccccggcc 540
agcatggccg cgaccctgcg caagctgctg accagccagc gtctgagcgc ccgttcgcaa 600
cggcagctgc tgcagtggat ggtggacgat cgggtcgccg gaccgttgat ccgctccgtg 660
ctgccggcgg gctggtttat cgccgataag accggagctg gcgagcgggg tgcgcgcggg 720
attgtcgccc tgcttggccc gaataacaaa gcagagcgca ttgtggtgat ttatctgcgg 780
gataccccgg cgagcatggc cgagcgaaat cagcaaatcg ccgggatcgg cgcggcgctg 840
atcgagcact ggcaacgcta a 861

<210> 1902
<211> 861
<212> DNA
<213> Klebsiella pneumoniae strain 803

<400> 1902
atgcgttata ttcgcctgtg tattatctcc ctgttagcca ccctgccgct ggcggtacac 60

gccagcccgc agccgcttga gcaaattaaa caaagcgaaa gccagctgtc gggccgcgta 120
ggcatgatag aaatggatct ggccagcggc cgcacgctga ccgcctggcg cgccgatgaa 180
cgctttccca tgatgagcac ctttaaagta gtgctctgcg gcgcagtgct ggcgcgggtg 240
gatgccggtg acgaacagct ggagcgaaag atccactatc gccagcagga tctggtggac 300
tactcgccgg tcagcgaaaa acaccttgcc gacggcatga cggtcggcga actctgcgcc 360
gccgccatta ccatgagcga taacagcgcc gccaatctgc tgctggccac cgtcggcggc 420
cccgcaggat tgactgcctt tttgcgccag atcggcgaca acgtcacccg ccttgaccgc 480
tgggaaacgg aactgaatga ggcgcttccc ggcgacgccc gcgacaccac taccccggcc 540
agcatggccg cgaccctgcg caagctgctg accagccagc gtctgagcgc ccgttcgcaa 600
cggcagctgc tgcagtggat ggtggacgat cgggtcgccg gaccgttgat ccgctccgtg 660
ctgccggcgg gctggtttat cgccgataag accggagctg ccgagcgggg tgcgcgcggg 720
attgtcgccc tgcttggccc gaataacaaa gcagagcgca ttgtggtgat ttatctgcgg 780
gatacgccgg cgagcatggc cgagcgaaat cagcaaatcg ccgggatcgg cgcggcgctg 840
atcgagcact ggcaacgcta a 861

<210> 1903
<211> 896
<212> DNA
<213> Klebsiella pneumoniae ATCC 700603

<400> 1903
atgcgttatt ttcgcctgtg tattatctcc ctgttagcca ccctgccgct ggcggtacac 60
gccagcccgc agccgcttga gcaaattaaa ctaagcgaaa gccagctgtc gggcagcgta 120
ggcatgatag aaatggatct ggccagcggc cgcacgctga ccgcctggcg cgccgatgaa 180
cgctttccca tgatgagcac ctttaaagta gtgctctgcg gcgcagtgct ggcgcgggtg 240
gatgccggtg acgaacagct ggagcgaaag atccactatc gccagcagga tctggtggac 300
tactcgccgg tcagcgaaaa acaccttgcc gacggcatga cggtcggcga actctgtgcc 360
gccgccatta ccatgagcga taacagcgcc gccaatctgc tgctggccac cgtcggcggc 420
cccgcaggat tgactgcctt tttgcgccag atcggcgaca acgtcacccg ccttgaccgc 480
tgggaaacgg aactgaatga ggcgcttccc ggcgacgccc gcgacaccac taccccggcc 540
agcatggccg cgaccctgcg caagctgctg accagccagc gtctgagcgc ccgttcgcaa 600
cggcagctgc tgcagtggat ggtggacgat cgggtcgccg gaccgttgat ccgctccgtg 660
ctgccggcgg gctggtttat cgccgataag accggagctg ccaaacgggg tgcgcgcggg 720
attgtcgccc tgcttggccc gaataacaaa gcagagcgga ttgtggtgat ttatctgcgg 780
gatacgccgg cgagcatggc cgagcgaaat cagcaaatcg ccgggatcgg cgcggcgctg 840
atcgagcact ggcaacgcta acccggcggt ggccgcgcgc gttatccggc tcgtag 896

<210> 1904
<211> 861
<212> DNA
<213> Escherichia coli strain JC2926

<400> 1904
atgcgttata ttcgcctgtg tattatctcc ctgttagcca ccctgccgct ggcggtacac 60
gccagcccgc agccgcttga gcaaattaaa ctaagcgaaa gccagctgtc gggccgcgta 120
ggcatgatag aaatggatct ggccagcggc cgcacgctga ccgcctggcg cgccgatgaa 180
cgctttccca tgatgagcac ctttaaagta gtgctctgcg gcgcagtgct ggcgcgggtg 240
gatgccggtg acgaacagct ggagcgaaag atccactatc gccagcagga tctggtggac 300
tactcgccgg tcagcgaaaa acaccttgcc gacggcatga cggtcggcga actctgcgcc 360
gccgccatta ccatgagcga taacagcgcc gccaatctgc tactggccac cgtcggcggc 420
cccgcaggat tgactgcctt tttgcgccag atcggcgaca acgtcacccg ccttgaccgc 480
tgggaaacgg aactgaatga ggcgcttccc ggcgacgccc gcgacaccac taccccggcc 540
agcatggccg cgaccctgcg caagctgctg accagccagc gtctgagcgc ccgttcgcaa 600
cggcagctgc tgcagtggat ggtggacgat cgggtcgccg gaccgttgat ccgctccgtg 660
ctgccggcgg gctggtttat cgccgataag accggagcta gcgagcgggg tgcgcgcggg 720
attgtcgccc tgcttggccc gaataacaaa gcagagcgca ttgtggtgat ttatctgcgg 780
gataccccgg cgagcatggc cgagcgaaat cagcaaatcg ccgggatcgg cgcggcgctg 840
atcgagcact ggcaacgcta a 861

<210> 1905
<211> 861
<212> DNA
<213> Pseudomonas aeruginosa

<400> 1905
atgcgttata ttcgcctgtg tattatctcc ctgttagcca ccctgccgct ggcggtacac 60
gccagcccgc agccgcttga gcaaattaaa ctaagcgaaa gccagctgtc gggccgcgta 120
ggcatgatag aaatggatct ggccagcggc cgcacgctga ccgcctggcg cgccgatgaa 180
cgctttccca tgatgagcac ctttaaagta gtgctctgcg gcgcagtgct ggcgcgggtg 240
gatgccggtg acgaacagct ggagcgaaag atccactatc gccagcagga tctggtggac 300
tactcgccgg tcagcgaaaa acaccttgcc gacggcatga cggtcggcga actctgcgcc 360
gccgccatta ccatgagcga taacagcgcc gccaatctac tactggccac cgtcggcggc 420
cccgcaggat tgactgcctt tttgcgccag atcggcgaca acgtcacccg ccttgaccgc 480
tgggaaacgg aactgaatga ggcgcttccc ggcgacgccc gcgacaccac taccccggcc 540
agcatggccg cgaccctgcg caagctgctg accagccagc gtctgagcgc ccgttcgcaa 600
cggcagctgc tgcagtggat ggtggacgat cgggtcgccg gaccgttgat ccgctccgtg 660
ctgccggcgg gctggtttat cgccgataag accggagcta gcaaacgggg tgcgcgcggg 720
attgtcgccc tgcttggccc gaataacaaa gcagagcgca ttgtggtgat ttatctgcgg 780
gatacgccgg cgagcatggc cgagcgaaat cagcaaatcg ccgggatcgg cgcggcgctg 840
atcgagcact ggcaacgcta a 861

<210> 1906
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1906
ccttattccc ttttttgcgg 20

<210> 1907
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1907
cacctatctc agcgatctgt ct 22

<210> 1908
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1908
aacagcggta agatccttga gag 23

<210> 1909
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1909
atgacttggt taagtactca cc 22

<210> 1910
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1910
atgacttggt tgagtactca cc 22

<210> 1911
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1911
ccataaccat gggtgataac ac 22

<210> 1912
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1912
ccataaccat gagtgataac ac 22

<210> 1913
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1913
cgccttgatc attgggaacc 20

<210> 1914
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1914

cgccttgatc gttgggaacc 20

<210> 1915
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1915
cgccttgata gttgggaacc 20

<210> 1916
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1916
cgtgggtctt gcggtatcat 20

<210> 1917
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1917
cgtgggtctg gcggtatcat 20

<210> 1918
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1918
gtgggtctca cggtatcatt g 21

<210> 1919
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1919
cgtgggtctc tcggtatcat t 21

<210> 1920
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (6)..(6)
<223> n represents any nucleotide

<400> 1920
cgtggntctc gcggtatcat 20

<210> 1921
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1921
cgtgggtcta gcggtatcat t 21

<210> 1922
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1922
gttttccaat gattagcact ttta 24

<210> 1923
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1923
gttttccaat gataagcact ttta 24

<210> 1924
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

Oligonucleotide

<400> 1924
gttttccaat gctgagcact ttt 23

<210> 1925
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1925
cgttttccaa tgatgagcac ttt 23

<210> 1926
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1926
gttttccaat ggtgagcact ttt 23

<210> 1927
<211> 861
<212> DNA
<213> Neisseria meningitidis strain MC9690-129

<400> 1927
atgagtattc aacattttcg tgtcgccctt attccctttt ttgcggcatt ttgccttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgaact ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180
gaagaacgtt ttccaatgat gagcactttt aaagttctgc tatgtggtgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300
gttgagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgctgcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aactcgcctt 480
gatcgttggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccggtga gcgtgggtct 720
cgcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
acgacgggga gtcaggcaac tatggatgaa cgaaatagac agatcgctga gataggtgcc 840
tcactgatta agcattggta a 861

<210> 1928
<211> 861
<212> DNA
<213> Escherichia coli strain HB251

<400> 1928
atgagtattc aacatttccg tgtcgccctt attccctttt ttgcggcatt ttgccttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgaact ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180
gaagaacgtt ttccaatgat gagcactttt aaagttctgc tatgtggcgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300

gttaagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgcggcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aactcgcctt 480
gatcattggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccggtga gcgtgggtct 720
cgcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
acgacgggga gtcaggcaac tatggatgaa cgaaatagac agatcgctga gataggtgcc 840
tcactgatta agcattggta a 861

<210> 1929
<211> 808
<212> DNA
<213> Klebsiella oxytoca strain 26W

<400> 1929
atgagtattc aacatttccg tgtcgccctt attccctttt ttgcggcatt ttgccttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgagct ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180
gaagaacgtt ttccaatgat gagcactttt aaagttctgc tatgtggtgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300
gttgagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgcggcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aacccgcctt 480
gatagttggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccggtaa gcgtggatct 720
cgcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
acgacgggga gtcaggcaac tatggatg 808

<210> 1930
<211> 861
<212> DNA
<213> Escherichia coli

<400> 1930
atgagtattc aacattttcg tgtcgccctt attccctttt ttgcggcatt ttgccttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgaact ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180
gaagaacgtt ttccaatgat gagcactttt aaagttctgc tatgtggcgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300
gttgagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgctgcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aactcgcctt 480
gatcgttggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccggtga gcgtgggtct 720
ggcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
acgacgggga gtcaggcaac tatggatgaa cgaaatagac agatcgctga gataggtgcc 840
tcactgatta agcattggta a 861

<210> 1931
<211> 861
<212> DNA
<213> Escherichia coli strain BM2728

<400> 1931
atgagtattc aacatttccg tgtcgccctt attccctttt ttgcggcatt ttgccttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgaact ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180

gaagaacgtt ttccaatgat gagcactttt aaagttctgc tatgtggcgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300
gttgagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgcggcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aactcgcctt 480
gatcgttggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccggtga gcgtgggtct 720
ctcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
acgacgggga gtcaggcaac tatggatgaa cgaaatagac agatcgctga gataggtgcc 840
tcactgatta agcattggta a 861

<210> 1932
<211> 861
<212> DNA
<213> Escherichia coli

<400> 1932
atgagtattc aacattttcg tgtcgccctt attccctttt ttgcggcatt ttgccttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgaact ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180
gaagaacgtt ttccaatgct gagcactttt aaagttctgc tatgtggtgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300
gttgagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgctgcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aactcgcctt 480
gatcgttggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccggtga gcgtgggtct 720
agcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
acgacgggga gtcaggcaac tatggatgaa cgaaatagac agatcgctga gataggtgcc 840
tcactgatta agcattggta a 861

<210> 1933
<211> 861
<212> DNA
<213> Escherichia coli

<400> 1933
atgagtattc aacatttccg tgtcgccctt attccctttt ttgcggcatt ttgccttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgagct ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180
gaagaacgtt ttccaatggt gagcactttt aaagttctgc tatgtggtgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300
gttgagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgcggcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aacccgcctt 480
gatcgtcggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccggtga gcgtggatct 720
cgcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
acgacgggga gtcaggcaac tatggatgaa cgagatagac agatcgctga gataggtgcc 840
tcactgatta agcattggta a 861

<210> 1934
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1934
gaacgccagc gcgaaattca aaaag 25

<210> 1935
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1935
agctcggcat acttcgacag g 21

<210> 1936
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1936
taccacccgc acggc 15

<210> 1937
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1937
cggagtcgcc gtcgatg 17

<210> 1938
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1938
ccgcgcacca ttgcttcgta cactgaggag tctccgcgcg g 41

<210> 1939
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

Oligonucleotide

<400> 1939
cgacccggat ggtagtatcg ataatgatcc gccagcggcc gggtcg 46

<210> 1940
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1940
gtatcgttgg tgacgtaat 19

<210> 1941
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1941
gcaatggtcc gtttaagt 18

<210> 1942
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1942
gactggaaca aagcctataa aaaatca 27

<210> 1943
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1943
gctggtggac ggccag 16

<210> 1944
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1944
tttcgccgcc atgcgttac 19

<210> 1945
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1945
cggcgactac gcggtat 17

<210> 1946
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1946
cggcgacttc gcggtat 17

<210> 1947
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1947
cggtatacgg caccatcgt 19

<210> 1948
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1948
gcggtataca acaccatcg 19

<210> 1949
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1949

cggtatacgc caccatcgt 19

<210> 1950
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1950
ggcgacatcg cctgc 15

<210> 1951
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1951
ggcgacagag cctgcta 17

<210> 1952
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1952
cctgctatgg agcgatggt 19

<210> 1953
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1953
cgcctgctat aaagcgatgg t 21

<210> 1954
<211> 589
<212> DNA
<213> Klebsiella pneumoniae subsp. pneumoniae ATCC 13883

<400> 1954
acaccggtca acattgagga agagcttaag aactcttatc tggattatgc gatgtcggtc 60
attgttggcc gtgcgctgcc ggatgtccga gatggcctga agccggtaca ccgtcgcgta 120
ctttacgcca tgaacgtatt gggcaatgac tggaacaaag cctataaaaa atcagcccgt 180
gtcgttggtg acgtaatcgg taaataccac ccgcacggcg actccgcggt atacgacacc 240
atcgtgcgta tggcgcagcc gttctcgctg cgttacatgc tggtggacgg ccagggtaac 300

tttggttcca tcgacggcga ctccgccgcg gcgatgcgtt ataccgaaat tcgtctggcg 360
aaaatcgctc atgagctgat ggccgatctt gaaaaagaga cggtcgattt cgtcgacaac 420
tatgacggta cggagcgtat tccggacgtc atgccgacca aaattcctaa cctgctggtg 480
aacggcgcct ccgggatcgc cgtagggatg gccaccaaca taccgccaca taacctgacg 540
gaagtgatta acggctgtct ggcgtatgtt gacgatgaag acatcagca 589

<210> 1955
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1955
cgcgcaacca ttgcttcgta cactgaggag tctgcgcg 38

<210> 1956
<211> 989
<212> DNA
<213> Candida inconspicua ATCC 16783

<400> 1956
cggtaaaacc actttaactg ctgcaatcac caaagtttta tctgaagaag gtggtgcaga 60
tttcttagat tattcatcta ttgataaagc accagaagag agagctagag gtattaccat 120
ttctactgct catgttgaat atgaaactcc aaacagacat tattcacatg ttgattgtcc 180
aggtcatcaa gattatatta agaacatgat tactggtgca gctcaaatgg atggtgctat 240
tattgttgtt gcagctactg atggtcaaat gccacaaact aaggaacatt tattattagc 300
tagacaagtt ggtgttcaac atttagttgt ttttgttaac aagtgtgata ccgttgatga 360
tccagaaatg ttrgaattag ttgaaatgga aatgagagaa ttattgaccg aatatggatt 420
ygatggtgat aacacaccag ttattatggg ttctgcatta atggcattag aaggtaagag 480
accagaagtt ggtaaagaat ctattgttaa gttaatggaa gctgttgata cttggattcc 540
aactccacaa agagacttag aaaaaccatt cttattacca attgatgaag ttttctctat 600
ttctggtaga ggtactgttg tttctggtac tgttgataga ggtacattaa agaagggtga 660
agaagttgaa attgttggtg gtaaagaagg tgttattaag actactgtta ccggtattga 720
aatgtatcac aaggaattag atcaagcaca agctggtgat actccaggta ttttgttaag 780
aggtgttaag agagatcaaa ttgcaagagg tcaaattctt gcaaagccag gwtctgttaa 840
ggcatacaag aagttcttat catcattata cattttaaca aaggaagaag gtggtagaca 900
tactccattt tctgaaaatt acagacctca aatgtacatt agaacttcca atgttaatgt 960
tactttgaag ttcccagaaa ctgaagaag 989

<210> 1957
<211> 991
<212> DNA
<213> Candida utilis ATCC 22023

<400> 1957
ggtaagacca cccttactgc cgccatcacc aagtgccttg ctgagaaggg aggtgcctcg 60
ttcttggact acagtgccat cgacaaggcg ccagaggaga gagcaagagg tatcaccatc 120
tccactgcgc acgttgagta tgaaactgcc aacagacact actcgcacgt tgactgtcca 180
ggtcacgctg attacatcaa gaacatgatt accggtgctg cgcagatgga cggtgctatc 240
attgtcgttg cagccactga cggtcagatg ccacagacca gagaacactt gttgcttgcc 300
agacaagttg gtgtccagca cattgttgtc ttcgtcaaca aggttgacac catcgacgac 360
cctgagatgc ttgagcttgt tgaaatggag atgagagagt tgcttacttc gtatggattt 420
gacggtgata acaccccagt tatcatgggt tctgctttgt gtgctttgga aggccgtgag 480
ccagagattg gtgctaaggc cattgacaag ttgatggagg ccattgatga gtacatccca 540
actcctcaga gagacctgga aaagccattc ytgatgggtg ttgaagacgt gttctcgatc 600
tctggtagag gtaccgttgt cacrggccgt gttgagcgtg gtaacttgaa gaaaggtgat 660
gaaattgaac ttgttggcta caacaagaac ccaatcaaga ccaccgtcac cggtatcgaa 720
atgttcaaga aggagttgga atctgccatg gctggtgaca actgtggtat cttgttgcgt 780
ggtatcaaga gagatgacgt caagagaggt atggttgctg ctaagccagg ctccgtctct 840
gcacacacca agttcctcgc ttccttgtac atcctgacra aggaggaagg tggtcgtcac 900

agtgcctttg ctgagaacta cagaccacag atgttcatca gaaccggaga tgtcaccacc 960
atcttgacat ggccagagga gcacgctgac c 991

<210> 1958
<211> 985
<212> DNA
<213> Candida zeylanoides ATCC 7351

<400> 1958
cggtaagacc actttgaccg ccgccatcac caaggtgttg agcgccaaag gtggtgcttc 60
cttcttggac tacgggtcca tcgacagagc ccctgaggag agagccagag gtattactat 120
ctcgactgcc cacgttgagt acgagaccga taagagacac tacgcccacg ttgattgccc 180
tggtcacgct gattacatca agaacatgat cactggtgcc gcccaaatgg acggtgccat 240
tattgtcgtt gctgcttctg atggccaaat gccgcagacc agagagcact tgttgcttgc 300
cagacaggtt ggtgtgcaga acttggttgt gtttgttaac aaggtggaca ccatcgacga 360
ccccgaaatg ttggagttgg tggagatgga aatgagagaa ttgttgaccc actacggctt 420
tgacggtgac aacacccctg tcatcatggg ttcggcgttg tgtgccttgg aagacaggca 480
gcctgagatt ggcgagcaag ccatcatgaa gttgttggac gctgtcgacg agtacattcc 540
cactcctcag agagacttgg agcaaccatt tttgatgccc gttgaggatg ttttctccat 600
ctctggcaga ggtactgttg tcaccggtcg tgttgagaga ggctcattga agaagggtga 660
ggagattgag attgttggcg acttccccaa gcccttcaag actaccgtca ccggcattga 720
gatgttcaag aaggagttgg atgccgcgat ggcgggcgac aacgccggga tcttgttgag 780
aggtgtcaag agagacgagg tctcgagagg tatggttttg gccaagcccg gtactgtcac 840
ttcgcacacc aaggtgttgg cgtcgcttta catcttgacc aaagaggaag gtggccgcca 900
ctcgcccttt ggtgagaact acaagccaca gttattcatc agaacctccg atgtcactgg 960
tactttgagg ttccccgccg gtgag 985

<210> 1959
<211> 973
<212> DNA
<213> Candida catenulata ATCC 10565

<400> 1959
cggtaagacc accttgactg ccgccatcac caaggttctc tccgagaagg gtggtgccga 60
cttcttggac tacggtgcca ttgacagagc ccccgaggag cgtgcccgtg gtatcaccat 120
ctccactgcc cacgttgagt acgagactga caaccgtcac tacgcccaca ttgactgtcc 180
cggtcacgct gattacatca agaacatgat taccggtgcc gcccagatgg acggtgccat 240
tattgtcctt gctgctactg acggtgccat gccccagacc cgcgagcact tgcttctcgc 300
ccgtcaggtt ggtatccagg aattggttgt gtttgtgaac aaggttgaca ccatcgacga 360
ccccgagatg ttggagctcg ttgagatgga gatccgcgag ttgttgtctg agttcggttt 420
tgacggtgac aacacccccg tcatcatggg ttccgctttg tgcgctttgg agggcaagca 480
gcccgagatt ggtgagcagg ctatcaccaa gttgatggcc gccgttgacg agcacatccc 540
cacccccag cgtgacttgg agcagccttt cttgatgcct gttgagggtg ttttctctat 600
ctctggccgt ggtaccgtgg tgactggtaa ggttgcccgt ggtgtcctca agaagggtga 660
ggagattgag attgttggca actttgacaa gccctacaag gtgactgtta ctggtattga 720
gatgttcaag aaggagttgg accaggccat ggctggtgac aacgccggta tcttgttgcg 780
tggtgtcaag cgtgacgagg tgtctcgtgg tatggttttg gccaagcccg gcactgttgt 840
ctcgcacaag aaggttttgg cttcgcttta catcttgacc caggaggagg gtggccgtaa 900
gaccggcttc ggctccaact acaagcccca gttgttcttg cgcactaccg acgtcactgg 960
taccctcacc ttc 973

<210> 1960
<211> 985
<212> DNA
<213> Candida krusei ATCC 28870

<400> 1960
aagactacct tgactgctgc aatcaccaag gtcttagctg atcaaggtgg tgctgatttc 60
ttagattatg catctattga caaggctcct gaagaaagag caagaggtat tactatctct 120
actgctcacg ttgagtatga aaccccaaac agacattatt ctcatgtcga ttgtcctggc 180
catcaagatt atattaagaa tatgattact ggtgctgcac aaatggatgg tgctattatt 240
gttgttgctg ctactgatgg tcaaatgcca caaactaagg aacatttatt attagcaaga 300
caagttggtg ttcaacattt agttgtcttt gttaataaat gtgacaccat tgatgaccca 360

gaaatgttgg aattagttga aatggaaatg agagaactat tgtctgaata tggttttgat 420
ggtgataaca ctccagttat tatgggttct gcattgatgg ctttagaaga caagagacct 480
gaagttggta aggaatctat tttaaagtta atggaagcyg ttgacacatg gattccaacc 540
ccagagagag atttagaaaa accatttttg ttacctattg atgaagtttt ctcaatctct 600
ggtagaggta ctgtcgtttc tggtactgtc gaaagaggta ctttgaagaa gggtgaagaa 660
gttgaaattg ttggtggtaa ggatggttct attaaaacta ctgtcacagg tattgaaatg 720
tatcacaagg aattagacca agcgcaagca ggtgatactc caggtatttt attaagaggt 780
gtcaagagag accaaatcaa gagaggtcaa attttagcaa agccagattc cgttaaggca 840
tacaagaagt tcttggcttc cctttatatc ttaaccaagg aagaaggtgg tagacataca 900
ccattctctg aaaactacag accacaaatg tacatcagaa ctaccaatgt taacgttact 960
ttgaagttcc cagacactga agaag 985

<210> 1961
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1961
gctcaaggca gatggcattc cc 22

<210> 1962
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1962
ggacaaggcg gttgcgtttg at 22

<210> 1963
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1963
cattcccgtc tcgctcgaca gt 22

<210> 1964
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1964
atctgcctgc ccgtcttgc 19

<210> 1965

<211> 816
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Plasmid pGS05

<400> 1965
atgaataaat cgctcatcat tttcggcatc gtcaacataa cctcggacag tttctccgat 60
ggaggccggt atctggcgcc agacgcagcc attgcgcagg cgcgtaagct gatggccgag 120
ggggcagatg tgatcgacct cggtccggca tccagcaatc ccgacgccgc gcctgtttcg 180
tccgacacag aaatcgcgcg tatcgcgccg gtgctggacg cgctcaaggc agatggcatt 240
cccgtctcgc tcgacagtta tcaacccgcg acgcaagcct atgccttgtc gcgtggtgtg 300
gcctatctca atgatattcg cggttttcca gacgctgcgt tctatccgca attggcgaaa 360
tcatctgcca aactcgtcgt tatgcattcg gtgcaagacg ggcaggcaga tcggcgcgag 420
gcacccgctg gcgacatcat ggatcacatt gcggcgttct ttgacgcgcg catcgcggcg 480
ctgacgggtg ccggtatcaa acgcaaccgc cttgtccttg atcccggcat ggggtttttt 540
ctgggggctg ctcccgaaac ctcgctctcg gtgctggcgc ggttcgatga attgcggctg 600
cgcttcgatt tgccggtgct tctgtctgtt tcgcgcaaat cctttctgcg cgcgctcaca 660
ggccgtggtc cgggggatgt cggggccgcg acactcgctg cagagcttgc cgccgccgca 720
ggtggagctg acttcatccg cacacacgag ccgcgcccct tgcgcgacgg gctggcggta 780
ttggcggcgc tgaaagaaac cgcaagaatt cgttaa 816

<210> 1966
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1966
catgccagtc ttgccaacg 19

<210> 1967
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1967
cagcaataag taatccagcg atg 23

<210> 1968
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1968
ggagagattt caccgcatag 20

<210> 1969
<211> 22
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1969
agccaaccat catgctattc ca 22

<210> 1970
<211> 1206
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Transposon Tn10

<400> 1970
atgaatagtt cgacaaagat cgcattggta attacgttac tcgatgccat ggggattggc 60
cttatcatgc cagtcttgcc aacgttatta cgtgaattta ttgcttcgga agatatcgct 120
aaccactttg gcgtattgct tgcactttat gcgttaatgc aggttatctt tgctccttgg 180
cttggaaaaa tgtctgaccg atttggtcgg cgcccagtgc tgttgttgtc attaataggc 240
gcatcgctgg attacttatt gctggctttt tcaagtgcgc tttggatgct gtatttaggc 300
cgtttgcttt cagggatcac aggagctact ggggctgtcg cggcatcggt cattgccgat 360
accacctcag cttctcaacg cgtgaagtgg ttcggttggt taggggcaag ttttgggctt 420
ggtttaatag cggggcctat tattggtggt tttgcaggag agatttcacc gcatagtccc 480
ttttttatcg ctgcgttgct aaatattgtc actttccttg tggttatgtt ttggttccgt 540
gaaaccaaaa atacacgtga taatacagat accgaagtag gggttgagac gcaatcgaat 600
tcggtataca tcactttatt taaaacgatg cccattttgt tgattattta tttttcagcg 660
caattgatag gccaaattcc cgcaacggtg tgggtgctat ttaccgaaaa tcgttttgga 720
tggaatagca tgatggttgg cttttcatta gcgggtcttg gtcttttaca ctcagtattc 780
caagcctttg tggcaggaag aatagccact aaatggggcg aaaaaacggc agtactgctc 840
gaatttattg cagatagtag tgcatttgcc tttttagcgt ttatatctga aggttggtta 900
gatttccctg ttttaatttt attggctggt ggtgggatcg ctttacctgc attacaggga 960
gtgatgtcta tccaaacaaa gagtcatgag caaggtgctt tacagggatt attggtgagc 1020
cttaccaatg caaccggtgt tattggccca ttactgttta ctgttattta taatcattca 1080
ctaccaattt gggatggctg gatttggatt attggtttag cgttttactg tattattatc 1140
ctgctatcga tgaccttcat gttaacccct caagctcagg ggagtaaaca ggagacaagt 1200
gcttag 1206

<210> 1971
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1971
cygactgygc catcctyatc a 21

<210> 1972
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature

<222> (3)..(3)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (13)..(13)
<223> n represents a modified base

<220>
<221> modified_base
<222> (3)..(3)
<223> i

<220>
<221> modified_base
<222> (13)..(13)
<223> i

<400> 1972
mgncagctca tynttgcwks c 21

<210> 1973
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (9)..(9)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (16)..(16)
<223> n represents a modified base

<220>
<221> modified_base
<222> (9)..(9)
<223> i

<220>
<221> modified_base
<222> (16)..(16)
<223> i

<400> 1973
racaccrgny ttggwntcct t 21

<210> 1974
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature

<222> (8)..(8)
<223> n represents a modified base

<220>
<221> modified_base
<222> (8)..(8)
<223> i

<400> 1974
acaagggntg grmsaaggag ac 22

<210> 1975
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1975
tgrccrgggt ggttraggac g 21

<210> 1976
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (16)..(16)
<223> n represents a modified base

<220>
<221> modified_base
<222> (16)..(16)
<223> i

<400> 1976
gatggaytcy gtyaantggg a 21

<210> 1977
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1977
gatggaytcy gtyaartggg a 21

<210> 1978
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (5)..(5)
<223> n represents a modified base

<220>
<221> modified_base
<222> (5)..(5)
<223> i

<400> 1978
catcntgyaa tggyaatcty aat 23

<210> 1979
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1979
catcytgyaa tggyaascty aat 23

<210> 1980
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (9)..(9)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (12)..(12)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (14)..(14)
<223> n represents a modified base

<220>
<221> modified_base
<222> (9)..(9)
<223> i

<220>
<221> modified_base
<222> (12)..(12)
<223> i

<220>

<221> modified_base
<222> (14)..(14)
<223> i

<400> 1980
tcratggcnt cnanragrgt yt 22

<210> 1981
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (9)..(9)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (15)..(15)
<223> n represents a modified base

<220>
<221> modified_base
<222> (9)..(9)
<223> i

<220>
<221> modified_base
<222> (15)..(15)
<223> i

<400> 1981
tggacaccns caagnggkcy g 21

<210> 1982
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (9)..(9)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (15)..(15)
<223> n represents a modified base

<220>
<221> modified_base
<222> (9)..(9)
<223> i

<220>
<221> modified_base
<222> (15)..(15)
<223> i

<400> 1982
tggacacyns caagnggkcy g 21

<210> 1983
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (14)..(14)
<223> n represents a modified base

<220>
<221> modified_base
<222> (14)..(14)
<223> i

<400> 1983
cygaytgcgc yatnctcatc a 21

<210> 1984
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1984
cygaytgygc yatyctsatc a 21

<210> 1985
<211> 1383
<212> DNA
<213> Cryptococcus neoformans strain M1-106

<400> 1985
atgggtaagg acaagctgca cgtcaacgtc gttgttatcg gtcacgtcga ctccggtaag 60
tcgaccacca ccggtcactt gatctacaag tgcggtggta tcgacaagcg aaccattgag 120
aagttcgaga aggaggctca agagctcgga aagtcttctt tcaagtacgc ttgggttctt 180
gacaagctta aggccgagcg agagcgaggt atcaccatcg acattgctct ttggaagttc 240
gagaccccta agtaccaggt taccgtcatt gacgcccccg gtcaccgaga cttcatcaag 300
aacatgatca ccggtacctc ccaggctgac tgtgccatcc tcatcattgc caccggtatc 360
ggtgagttcg aggctggtat ctccaaggac ggtcagaccc gagagcacgc cctcctcgcc 420
ttcaccctcg gtgtcaggca gctcattgtt gcttgcaaca agatggacac ctgcaagtgg 480
tctgaggacc gattcaacga aatcgtcaag gagaccaacg gtttcatcaa gaaggttggt 540
tacaacccca aggctgtccc cttcgtcccc atctctggtt ggcacggtga caacatgttg 600
gaggagacca ccaacatgcc ctggtacaag ggatggacca aggagaccaa gtccggtgtt 660
tccaagggta agacccttct cgaggccatc gacgccagta ggccccctac ccgacccacc 720
gacaagcccc tccgtctccc tctccaggac gtctacaaga tcggtggtat cggcacagtc 780
cctgtcggcc gagtcgagac cggtgtcatc aaggccggta tggtcgtcaa gttcgccccc 840
accaacgtca ccactgaagt caagtccgtt gagatgcacc acgagcagat ccccgagggt 900

ctccccggag acaacgttgg tttcaacgtc aagaacgttt ccatcaagga catccgacga 960
ggtaacgtct gtggtgactc caagaacgac ccccctatgg aggctgcttc tttcaacgcc 1020
caggttatcg tccttaacca ccctggtcag atcggtgccg gttacacccc cgttctcgac 1080
tgtcacactg cccacattgc ttgcaagttc tctgagttga tcgagaagat tgaccgacga 1140
accggtaagg tcatggaggc cgcccccaag ttcgtcaagt ctggtgacgc cgccattgtc 1200
aagcttgttt cccagaagcc tctctgtgtt gagacctacg ccgactaccc ccctcttggt 1260
cgattcgccg tccgagacat gcgacagacc gttgccgttg gtgttattaa gagtgtggag 1320
aagtccgatg ggaagagcgg caaggttacc aaggccgccg agaaggctgc taagaagaag 1380
taa 1383

<210> 1986
<211> 1380
<212> DNA
<213> Cryptococcus neoformans strain B3501

<400> 1986
atgggtaagg acaagctgca cgtcaacgtc gttgttatcg gtcacgtcga ctccggtaag 60
tcgaccacca ccggtcactt gatctacaag tgcggtggta tcgacaagcg aaccattgag 120
aagttcgaga aggaggctca agagctcgga aagtcttctt tcaagtacgc ttgggttctt 180
gacaagctta aggccgagcg agagcgaggt atcaccatcg acattgctct ttggaagttc 240
gagaccccca ggtaccaggt caccgtcatt gacgcccccg gtcaccgaga cttcatcaag 300
aacatgatca ccggtacctc ccaggctgac tgtgccatcc tcatcattgc caccggtatc 360
ggtgagttcg aggccggtat ctccaaggac ggtcagaccc gagagcacgc cctcctcgcc 420
ttcaccctcg gtgtcaggca gctcattgtt gcttgcaaca agatggacac ctgcaagtgg 480
tccgaggacc gattcaacga aatcgtcaag gagaccaacg gtttcatcaa gaaggttggc 540
tacaacccca aggctgtccc cttcgtcccc atctctggtt ggcacggtga caacatgttg 600
gaggagacca ccaacatgcc ctggtacaag ggatggacca aggagaccaa gtctggtgtt 660
tccaggggta agacccttct cgaggccatc agcgccagta ggccccatac ccgacccacc 720
gacaagcccc tccgtctccc tctccaggac gtctacaaga tcggtggtat cggcacagtc 780
cctgtcggcc gagtcgagac cggtgtcatc aaggccggta tggtcgtcaa gttcgccccc 840
accaacgtca ccactgaagt caagtccgtt gagatgcacc acgagcagat ccccgagggt 900
cttcccggag acaacgttgg tttcaacgtc aagaacgttt ccatcaagga catccgacga 960
ggtaacgtct gtggtgactc caagaacgac ccccctatgg aggctgcttc tttcaacgcc 1020
caggttatcg tccttaacca ccctggtcag atcggtgccg gttacacccc cgttctcgac 1080
tgtcacactg cccacattgc ctgcaagttt gctgagttga tcgagaagat tgaccgacga 1140
accggtaagg tcatggaggc cgcccccaag ttcgtcaagt ctggtgacgc cgccattgtc 1200
aagcttgttg cccagaagcc cctctgtgtt gagacctacg ccgactaccc ccctcttggt 1260
cgattcgccg tccgagacat gcgacagacc gttgccgttg gtgttatcaa gagcgtggac 1320
aagaccgaga agggtggcaa ggtcaccaag gctgctgaga aggctgccaa gaagaagtaa 1380

<210> 1987
<211> 1377
<212> DNA
<213> Saccharomyces cerevisiae

<400> 1987
atgggtaaag agaagtctca cattaacgtt gtcgttatcg gtcatgtcga ttctggtaag 60
tctaccacta ccggtcattt gatttacaag tgtggtggta ttgacaagag aaccatcgaa 120
aagttcgaaa aggaagccgc tgaattaggt aagggttctt tcaagtacgc ttgggttttg 180
gacaagttaa aggctgaaag agaaagaggt atcactatcg atattgcttt gtggaagttc 240
gaaactccaa agtaccaagt taccgttatt gatgctccag gtcacagaga tttcatcaag 300
aacatgatta ctggtacttc tcaagctgac tgtgctatct tgattattgc tggtggtgtc 360
ggtgaattcg aagccggtat ctctaaggat ggtcaaacca gagaacacgc tttgttggct 420
ttcaccttgg gtgttagaca attgattgtt gctgtcaaca agatggactc cgtcaaatgg 480
gacgaatcca gattccaaga aattgtcaag gaaacctcca actttatcaa gaaggttggt 540
tacaacccaa agactgttcc attcgtccca atctctggtt ggaacggtga caacatgatt 600
gaagctacca ccaacgctcc atggtacaag ggttgggaaa aggaaaccaa ggccggtgtc 660
gtcaagggta agactttgtt ggaagccatt gacgccattg aacaaccatc tagaccaact 720
gacaagccat tgagattgcc attgcaagat gtttacaaga tcggtggtat tggtactgtg 780
ccagtcggta gagttgaaac cggtgtcatc aagccaggta tggttgttac tttcgcccca 840
gctggtgtta ccactgaagt caagtccgtt gaaatgcatc acgaacaatt ggaacaaggt 900
gttccaggtg acaacgttgg tttcaacgtc aagaacgttt ccgttaagga aatcagaaga 960
ggtaacgtct gtggtgacgc taagaacgat ccaccaaagg gttgcgcttc tttcaacgct 1020
accgtcattg ttttgaacca tccaggtcaa atctctgctg gttactctcc agttttggat 1080

tgtcacactg ctcacattgc ttgtagattc gacgaattgt tggaaaagaa cgacagaaga 1140
tctggtaaga agttggaaga ccatccaaag ttcttgaagt ccggtgacgc tgctttggtc 1200
aagttcgttc catctaagcc aatgtgtgtt gaagctttca gtgaataccc accattaggt 1260
agattcgctg tcagagacat gagacaaact gtcgctgtcg gtgttatcaa gtctgttgac 1320
aagactgaaa aggccgctaa ggttaccaag gctgctcaaa aggctgctaa gaaataa 1377

<210> 1988
<211> 1377
<212> DNA
<213> Saccharomyces cerevisiae

<400> 1988
atgggtaaag agaagtctca cattaacgtt gtcgttatcg gtcatgtcga ttctggtaag 60
tctaccacta ccggtcattt gatttacaag tgtggtggta ttgacaagag aaccatcgaa 120
aagttcgaaa aggaagccgc tgaattaggt aagggttctt tcaagtacgc ttgggttttg 180
gacaagttaa aggctgaaag agaaagaggt atcactatcg atattgcttt gtggaagttc 240
gaaactccaa agtaccaagt taccgttatt gatgctccag gtcacagaga tttcatcaag 300
aacatgatta ctggtacttc tcaagctgac tgtgctatct tgattattgc tggtggtgtc 360
ggtgaattcg aagccggtat ctctaaggat ggtcaaacca gagaacacgc tttgttggct 420
ttcaccttgg gtgttagaca attgattgtt gctgtcaaca agatggactc cgtcaaatgg 480
gacgaatcca gattccaaga aattgtcaag gaaacctcca actttatcaa gaaggttggt 540
tacaacccaa agactgttcc attcgtccca atctctggtt ggaacggtga caacatgatt 600
gaagctacca ccaacgctcc atggtacaag ggttgggaaa aggaaaccaa ggccggtgtc 660
gtcaagggta agactttgtt ggaagccatt gacgccattg aacaaccatc tagaccaact 720
gacaagccat tgagattgcc attgcaagat gtttacaaga ttggtggtat tggtactgtg 780
ccagtcggta gagttgaaac cggtgtcatc aagccaggta tggttgttac ttttgcccca 840
gctggtgtta ccactgaagt caagtccgtt gaaatgcatc acgaacaatt ggaacaaggt 900
gttccaggtg acaacgttgg tttcaacgtc aagaacgttt ccgttaagga aatcagaaga 960
ggtaacgtct gtggtgacgc taagaacgat ccaccaaagg gttgcgcttc tttcaacgct 1020
accgtcattg ttttgaacca tccaggtcaa atctctgctg gttactctcc agttttggat 1080
tgtcacactg ctcacattgc ttgtagattc gacgaattgt tggaaaagaa cgacagaaga 1140
tctggtaaga agttggaaga ccatccaaag ttcttgaagt ccggtgacgc tgctttggtc 1200
aagttcgttc catctaagcc aatgtgtgtt gaagctttca gtgaataccc accattaggt 1260
agattcgctg tcagagacat gagacaaact gtcgctgtcg gtgttatcaa gtctgttgac 1320
aagactgaaa aggccgctaa ggttaccaag gctgctcaaa aggctgctaa gaaataa 1377

<210> 1989
<211> 1377
<212> DNA
<213> Eremothecium gossypii ATCC 10895

<400> 1989
atgggtaagg aaaagactca cgttaacgtt gtcgtcatcg gtcacgtcga ctctggtaag 60
tctactacca ccggtcactt gatctacaag tgtggtggta ttgacaagag aaccatcgag 120
aagttcgaga aggaggctgc cgagttgggt aagggttctt tcaagtacgc ctgggttttg 180
gacaaattga aggctgagag agagagaggt atcaccatcg acattgcgtt gtggaagttc 240
gagactccaa agtaccacgt cactgtcatt gacgccccag gccacagaga cttcatcaag 300
aacatgatta ccggtacttc tcaagctgac tgtgccatct tgatcattgc tggtggtgtc 360
ggtgagttcg aggctggtat ctccaaggac ggtcagacca gagagcacgc tttgttggct 420
tacaccttgg gtgtcaagca gttgatcgtt gccatcaaca agatggactc cgtcaagtgg 480
gacgagtcca gataccagga gattgtcaag gagacctcca acttcatcaa gaaggtcggt 540
tacaacccta agactgttcc attcgttcca atctccggct ggaacggtga caacatgatt 600
gaggccacca ccaacgcccc atggtacaag ggctgggaga aggagaccaa ggctggtgcc 660
gtcaagggta agaccttgtt ggaggccatt gacgccattg agccacctgt cagaccaact 720
gacaaggcat tgagattgcc attgcaggat gtctacaaga tcggtggtat tggtacggtt 780
ccagtcggca gagtcgagac cggtgtcatc aagccaggta tggttgttac cttcgcccca 840
tccggtgtca ccactgaagt caagtccgtc gagatgcacc acgagcaatt ggaggagggt 900
gtcccaggtg acaacgttgg tttcaacgtc aagaacgtct ccgtcaagga gatcagaaga 960
ggtaacgttt gcggtgactc caagaacgac ccaccaaagg ctgctgagtc cttcaacgct 1020
accgtcattg tcttgaacca cccaggtcaa atctctgccg gttactctcc agtcttggac 1080
tgtcacactg cccacattgc ttgtaagttc gacgagttgt tggagaagaa cgacagaaga 1140
accggtaaga agttggaaga ctctccaaag ttcctaaagg ccggtgacgc tgccatggtc 1200
aagtttgtcc catccaagcc aatgtgtgtt gaggctttca ccgactaccc accattgggt 1260
agattcgctg tcagagacat gagacagacc gttgctgtcg gtgtcatcaa gtctgttgtc 1320

aagtccgaca aggctggtaa ggtcaccaag gccgcccaaa aggctggtaa gaaatag 1377

<210> 1990
<211> 1377
<212> DNA
<213> Eremothecium gossypii

<400> 1990
atgggtaagg aaaagactca cgttaacgtt gtcgtcatcg gtcacgtcga ctctggtaag 60
tctactacca ccggtcactt gatctacaag tgtggtggta ttgacaagag aaccatcgag 120
aagttcgaga aggaggctgc cgagttgggt aagggttctt tcaagtacgc ctgggttttg 180
gacaaattga aggctgagag agagagaggt atcaccatcg acattgcgtt gtggaagttc 240
gagactccaa agtaccacgt cactgtcatt gacccccag gccacagaga cttcatcaag 300
aacatgatta ccggtacttc tcaagctgac tgtgccatct tgatcattgc tggtggtgtc 360
ggtgagttcg aggctggtat ctccaaggac ggtcagacca gagagcacgc tttgttggct 420
tacaccttgg gtgtcaagca gttgatcgtt gccatcaaca agatggactc cgtcaagtgg 480
gacgagtcca gataccagga gattgtcaag gagacctcca acttcatcaa gaaggtcggt 540
tacaacccta agactgttcc attcgttcca atctccggct ggaacggtga caacatgatt 600
gaggccacca ccaacgcccc atggtacaag ggctgggaga aggagaccaa ggctggtgcc 660
gtcaagggta agaccttgtt ggaggccatt gacgccattg agccacctgt cagaccaact 720
gacaaggcat tgagattgcc attgcaggat gtctacaaga tcggtggtat tggtacggtt 780
ccagtcggca gagtcgagac cggtgtcatc aagccaggta tggttgttac cttcgcccca 840
tccggtgtca ccactgaagt caagtccgtc gagatgcacc acgagcaatt ggaggagggt 900
gtcccaggtg acaacgttgg tttcaacgtc aagaacgtct ccgtcaagga gatcagaaga 960
ggtaacgttt gcggtgactc caagaacgac ccaccaaagg ctgctgagtc cttcaacgct 1020
accgtcattg tcttgaacca cccaggtcaa atctctgccg gttactctcc agtcttggac 1080
tgtcacactg cccacattgc ttgtaagttc gacgagttgt tggagaagaa cgacagaaga 1140
accggtaaga agttggaaga ctctccaaag ttcctaaagg ccggtgacgc tgccatggtc 1200
aagtttgtcc catccaagcc aatgtgtgtt gaggctttca ccgactaccc accattgggt 1260
agattcgctg tcagagacat gagacagacc gttgctgtcg gtgtcatcaa gtctgttgtc 1320
aagtccgaca aggctggtaa ggtcaccaag gccgcccaaa aggctggtaa gaaatag 1377

<210> 1991
<211> 1646
<212> DNA
<213> Aspergillus oryzae strain KBN616

<400> 1991
tggggtaagt ttatcaaccc gtcgagttgt gttgcatctc agatcatggc tgacaagtac 60
tttcctcctt acagtaagga agacaagcag cacatcaaca tcgtcgttat cggccacgtc 120
gattccggca agtccaccac cactggtcac ttgatctaca agtgtggtgg tatcgaccag 180
cgtaccatcg agaagttcga gaaggaagcc gctgagctcg gtaagggttc cttcaagtac 240
gcctgggttc ttgacaagct caagtccgag cgtgagcgtg gtatcaccat cgatatcgcc 300
ctctggaagt tccagacctc caagtatgag gtcaccgtca ttggtaagca tttgagttcc 360
aacctacgtt gcccaacatt tacagtcatc taacaaagtt caatagatgc ccccggtcac 420
cgtgacttca tcaagaacat gatcactggt acttcccagg ctgactgcgc tatcctcatc 480
attgcctccg gtactggtga attcgaggct ggtatctcca aggatggtca gacccgtgag 540
cacgctctgc tcgctttcac cctcggtgtc cgtcagctca tcgttgccct caacaagatg 600
gacacctgca agtggtctca ggatcgttac aacgaaatcg ttaaggagac ttccaacttc 660
atcaagaagg tcggatacaa ccccaagagc gttcctttcg tccccatctc cggtttcaac 720
ggtgacaaca tgattgaggc ctccaccaac tgcccctggt acaagggctg ggagaaggag 780
accaaggctg gcaagtccac cggtaagacc cttctcgagg ccatcgatgc catcgagccc 840
cccgtccgtc ccaccgacaa gcctctccgt cttcccctcc aggatgtcta caagatctct 900
ggtatcggta ctgtgcccgt cggtcgtgtc gagactggtg tcatcaagcc tggtatggtc 960
gttactttcg ctcctgccaa cgtgaccact gaagtcaagt ccgttgaaat gcaccaccag 1020
cagctccagg ccggtaaccc cggtgacaac gttggtttca acgtcaagaa cgtctccgtc 1080
aaggaagtcc gccgtggtaa cgttgccggt gactccaaga acgacccccc tgctggctgc 1140
gattccttca acgcccaggt catcgtcctt aaccaccccg gtcaggtcgg caacggttac 1200
gctcccgtcc tggactgcca caccgctcac attgcttgca agttcgctga gctccttgag 1260
aagattgacc gccgtaccgg taaatctgtt gaggacaagc ccaagttcat caagtctggt 1320
gatgctgcca tcgtcaagat gattccctcc aagcccatgt gtgtggagtc tttcactgac 1380
ttccccccctc ttggtcgttt cgctgtccgt gacgtaagtt tttccctctt gactatcttc 1440
acaatttttc acatattttc acgcctcgtc ccactctttt tcctcccttc ctctttggtt 1500
ccccttttttg cctgcaagtt ctctatagct aacatgatgt ctagatgcgt caaactgttg 1560

ccgtcggagt tatcaagtcg gttgagaaga acactggcgg ttctggcaag gtcaccaagg 1620
ccgcccagaa ggctggcaag aaataa 1646

<210> 1992
<211> 1380
<212> DNA
<213> Aureobasidium pullulans strain R106

<400> 1992
atgggtaagg aaaagtccca catcaacgtc gtcgttatcg gccacgtcga ctccggtaag 60
tcgaccacca ccggtcactt gatctacaag tgcggtggta tcgacaagcg taccatcgag 120
aagttcgaga aggaagccgc cgaactcggc aagggttcct tcaagtacgc ctgggtcctc 180
gacaagctga agtctgagcg tgagcgtggt atcactatcg atatcgctct gtggaagttc 240
gagacccccа agtacatggt caccgtcatc gatgcccccg gtcaccgtga tttcatcaag 300
aacatgatca ctggtacctc ccaggctgac tgcgccattc tcatcattgc cgccggtact 360
ggtgagttcg aggctggtat ctccaaggat ggccagactc gtgagcacgc ccttctcgcc 420
tacacccttg gtgtcaagca gctcatcgtc gctatcaaca agatggacac caccaagtgg 480
tctgaggccc gttaccagga gatcatcaag gagacctccg gtttcatcaa gaaggtcggc 540
tacaacccca agcacgttcc ctttgtcccc atctcgggtt tcaacggtga caacatgatt 600
gaggtttctt ccaactgccc ctggtacaag ggttgggaga aggagaccaa ggccaaggcc 660
actggtaaga ctctcctcga ggccattgac gccatcgacc ctccttcgcg ccccaccgac 720
aagcccctcc gtcttccccт ccaggatgtc tacaagatcg gtggtattgg cacggtgccc 780
gtcggccgtg tcgagaccgg taccatcaag ggtggtatgg tcgtcacctt cgcccccgct 840
ggtgtcacca ctgaggtcaa gtccgtcgag atgcaccacg agcagctctc cgagggtctc 900
cccggtgaca acgtcggctt caacgtcaag aacgtctccg tcaaggagat ccgtcgtggt 960
aacgttgccg gtgactccaa gaacgacccc cccaagggtt gcgactcctt caacgcccag 1020
gtcatcgtcc tcaaccaccc cggtcaggtc ggtgctggtt acgcacccgt cctcgattgc 1080
cacactgccc acatcgcctg caagttctcc gagcttgttg agaagattga ccgccgtacc 1140
ggcaagtccg ttgaggccgc ccccaagttc atcaagtctg gtgacgccgc catcgtcaag 1200
atggttccct ccaagcctat gtgtgttgag gccttcactg actaccctcc tctcggtcgt 1260
ttcgccgtcc gtgacatgag acagaccgtc gctgtcggtg tcatcaagtc cgtcgccaag 1320
tccgacaagc agggtgccgg taaggttacc aaggccgctg tcaaggctgg caagaagtaa 1380

<210> 1993
<211> 1383
<212> DNA
<213> Histoplasma capsulatum strain 186AS

<400> 1993
atgggtaagg aagacaagac tcacattaac ctcgtcgtca tcggccacgt cgattcgggc 60
aaatctacca ccactggtca tttgatctac aaatgcggtg gtattgacag ccgtaccatt 120
gagaagttcg aaaaggaagc cgaagagttg ggcaagaaat ccttcaaata tgcgtgggtc 180
cttgacaaac tgaagtctga gcgtgagcgt ggtatcacca tcgatattgc cctctggaaa 240
ttcgagactc cgaagtacag tgtcactgtc attgatgctc ccggccatcg tgacttcatc 300
aagaacatga tcactggtac ctcccaggct gactgcgcta tcctcatcat tgctgccggt 360
actggtgagt tcgaggctgg tatctccaag gatggccaga ctcgtgagca cgctctgctt 420
gctttcaccc ttggtgtgag gcaactcatc gttgccatca acaagatgga caccaccaag 480
tggtccgagt cccgtttcaa cgaaatcatc aaggaggttt ccaacttcat caagaaggtc 540
ggatataacc ccaaggctgt tcccttcgtg ccaatctctg gtttcgaggg tgacaacatg 600
attgaaccct cccccaactg cacatggtac aagggctgga acaaggagac tgcctctggc 660
aagtcttctg gtaaaaccct tctcgatgcc attgacgcca ttgaacccсc aacccgtcct 720
accgataagc ccctccgtct tcccctccag gatgtgtaca aaatctctgg tattggcact 780
gttcccgtcg gacgtgttga gactggtgtc atcaagcccg gtatggtcgt gactttcgct 840
ccctccaacg tcaccactga agtcaagtcc gtcgaaatgc accaccaaca actccaggct 900
ggttaccctg gcgacaacgt cggcttcaac gtcaagaacg tttcagtcaa ggaagtccgc 960
cgtggcaacg ttgctggcga ctccaaaaat gatcccccta agggctgcga atccttcaat 1020
gcccaggtca tcgtccttaa ccaccccggc caggttggcg ctggttatgc cccagtcctc 1080
gactgccaca ctgcccacat tgcttgcaag ttctctgagc ttattgagaa gatcgaccgc 1140
cgtaccggaa agtctgttga gaacaacccc aagttcatca agtctggtga tgctgctatc 1200
gtcaagatgg ttcccctccaa gcccatgtgc gtggagccct tcactgacta tcccccтctt 1260
ggacgtttcg ctgtccgtga catgagacaa accgtcgctg tcggtgtcat caagtccgtc 1320
atcaagtctg acaagactgc tggcaaggtc accaaggccg cgcagaaggc caccaagaaa 1380
taa 1383

<210> 1994
<211> 1383
<212> DNA
<213> Neurospora crassa

<400> 1994
atgggcaagg aggacaagac tcacatcaac gtcgtcgtta tcggccacgt cgattccggc 60
aagtctacca ctaccggtca cttgatctac aagtgcggtg gtatcgacaa gcgtaccatc 120
gagaagttcg agaaggaagc cgctgagctc ggtaagggtt ccttcaagta tgcctgggtt 180
cttgacaagc tcaaggccga gcgtgagcgt ggtatcacca tcgatatcgc cctctggaag 240
ttcgagactc ccaagtacta cgtcaccgtc atcgatgccc ccggtcatcg tgatttcatc 300
aagaacatga tcactggtac ctcccaggct gattgcgcta tcctcatcat tgccgccggt 360
actggtgagt tcgaggctgg tatctccaag gatggccaga cccgtgagca cgccctgctc 420
gcctacaccc tcggtgtcaa gcagctcatt gttgccatca acaagatgga caccacccag 480
tggtcccaga ctcgtttcga ggagatcatc aaggagacca agaacttcat caagaaggtt 540
ggctacaacc ccgctggtgt cgctttcgtc cccatctccg gcttcaacgg cgacaacatg 600
cttgagccct ccaccaactg cccctggtac aagggttggg agaaggagac caaggccggc 660
aaggccactg gcaagaccct cctcgaggcc atcgacgcca ttgagccccc caagcgtcct 720
accgacaagc ccctccgtct tcccctccag gatgtctaca agatcggtgg tatcggcaca 780
gtgcccgtcg gccgtatcga gactggtgtc ctcaagcccg gtatggtcgt taccttcgct 840
ccttccaacg tcaccactga agtcaagtcc gtcgagatgc accacgagca gcttgctcag 900
ggtgtccccg gtgacaacgt cggcttcaac gtgaagaacg tttccgtcaa ggatatccgc 960
cgtggtaacg ttgccggtga ctccaagaac gacccccctg ctggcgccgc ctctttcacc 1020
gcccaggtca tcgttctcaa ccaccccggt caggtcggtg cccgctacgc ccccgtcctc 1080
gactgccaca ctgcccacat tgcctgcaag ttcgccgagc tcctcgagaa gatcgaccgc 1140
cgtactggta aggctgttga ggcctccccc aagttcatca agtctggtga tgctgccatc 1200
gtcaagatga ttccctccaa gcccatgtgc gttgaggctt tcaccgacta ccctcccctc 1260
ggccgtttcg ccgtccgtga catgcgtcag accgtcgccg tcggtgtcat caaggccgtc 1320
gacaagtcca ccgctgccgc tggcaaggtc accaagtccg ctgccaaggc cgccaagaag 1380
taa 1383

<210> 1995
<211> 1383
<212> DNA
<213> Podospora anserina

<400> 1995
atgggcaagg aggacaagac tcacatcaac gtcgtcgtta tcggccacgt cgattccggc 60
aagtcgacca ccactggtca cttgatctac aagtgcggtg gtattgacaa gcgtaccatc 120
gagaagttcg agaaggaagc tgctgagctc ggcaagggct ctttcaagta tgcctgggtt 180
cttgacaagt tgaaggccga gcgtgagcgt ggtatcacca tcgatattgc cctctggaag 240
ttcgagaccc ccaagtacta tgtcaccgtc attgatgccc ccggccatcg tgatttcatc 300
aagaacatga ttactggtac ttcccaggcc gattgcgcca ttctcatcat tgccgccggt 360
actggtgagt tcgaggctgg tatctccaag gatggccaga cccgtgagca cgctctcctc 420
gcctacaccc tcggtgtgaa gcagctcatc gtcgccatca acaagatgga caccaccaag 480
tggtccgagg cccgcttcaa cgagatcatc aaggagacct ccaacttcat caagaaggtc 540
ggctacaacc ccaagactgt tgccttcgtc cccatctccg gtttcaacgg cgacaacatg 600
cttgaggctt ccaccaactg cccctggtac aagggctggg agaaggaggt caagggtggc 660
aaggccaccg gcaagaccct ccttgaggcc atcgactcca tcgagccccc caagcgtccc 720
accgacaagc ccctccgtct tcccctccag gatgtctaca agatcggcgg tatcggcaca 780
gtccctgtcg gccgtatcga gactggtatc ctcaagcccg gtatggtcgt taccttcgct 840
ccttccaacg tcaccactga agtcaagtcc gtcgagatgc accacgagca gctcgctgag 900
ggtgttcccg gtgacaacgt tggtttcaac gtgaagaacg tctccgtcaa ggaaatccgc 960
cgtggcaacg ttgccggtga ctccaagaac gacccccca tgggcgccgc ctctttcgat 1020
gcccaggtca tcgtcctcaa ccaccccggc caggtcggtg ctggttacgc ccccgtcctc 1080
gattgccaca ctgcccacat cgcctgcaag ttctctgagc tcctgcagaa gatcgaccgc 1140
cgtactggta aggccgttga ggagagcccc aagttcatca agtctggtga tgctgccatc 1200
gtcaagatgg ttccctccaa gcccatgtgc gttgaggctt tcactgagta ccctcccctc 1260
ggtcgtttcg ccgtccgtga catgcgtcag accgtcgctg tcggtgtcat caagaaggtc 1320
gagaaggccg ctgctggttc cggcaaggtt accaagtccg ctgccaaggc tggcaagaaa 1380
taa 1383

<210> 1996
<211> 1386

<212> DNA
<213> Podospora curvicolla strain VLV

<400> 1996
atgggcaagg aggacaagac tcacatcaac gtcgtcgtta tcggccacgt cgattccggc 60
aagtcgacca ccactggtca cttgatctac aagtgcggtg gtattgacaa gcgtaccatc 120
gagaagttcg agaaggaagc tgctgagctc ggcaagggct ctttcaagta tgcctgggtt 180
cttgacaagt tgaaggccga gcgtgagcgt ggtatcacca ttgatatcgc cctctggaag 240
ttcgagaccc ccaagtacta tgtcaccgtc atcgatgccc ccggccatcg tgatttcatc 300
aagaacatga ttactggtac ttcccaggcc gattgcgcca ttctcatcat tgccgccggt 360
actggtgagt tcgaggctgg tatctccaag gatggccaga cccgtgagca cgctctcctc 420
gcctacaccc tcggtgtgaa gcagctcatc gtcgccatca acaagatgga caccaccaaa 480
tggtccgagg cccgcttcaa cgagatcatc aaggagacct ccaacttcat caagaaggtc 540
ggctacaacc ccaagactgt tgccttcgtc cccatctccg gtttcaacgg cgacaacatg 600
cttgaggctt ccaccaactg cccctggtac aagggttggg agaaggaggt caagggtggc 660
aaggctactg gcaagaccct cctcgaggcc atcgactcca tcgagccccc caagcgtccc 720
accgacaagc ccctccgtct tcccccttcag gacgtttaca agatcggcgg tatcggcaca 780
gtccctgtcg gccgtatcga gactggtatc ctcaagcccg gtatggtcgt taccttcgcc 840
ccttccaacg tcaccactga agtcaagtcc gtcgagatgc accacgagca gctctctgag 900
ggtgtccccg gtgacaacgt tggtttcaac gtgaagaacg tctccgtcaa ggaaatccgc 960
cgtggcaacg ttgccggtga ctccaagaac gacccccctc ttggcgccgc ttctttcgat 1020
gcccaggtca tcgtcctcaa ccaccccggc caggtcggtg ctggttacgc ccccgtcctc 1080
gattgccaca ctgcccacat cgcctgcaag ttcgctgagc tcctgcagaa gatcgatcgc 1140
cgtactggta aggctgttga ggagagccct aagttcatca agtctggtga tgctgccatc 1200
gtcaagatga ttccctccaa gcccatgtgc gttgaggctt tcactgagta ccctcccctc 1260
ggtcgtttcg ctgtccgtga catgcgtcag accgtcgctg tcggtgtcat caagaaggtc 1320
gagaaggccg ctgctggttc cggcaaggtc accaagtccg ctgccaaggc tggtggcaag 1380
aaataa 1386

<210> 1997
<211> 1383
<212> DNA
<213> Sordaria macrospora strain OOO

<400> 1997
atgggtaagg aagacaaggc tcacatcaac gtcgtcgtta tcggccacgt cgattccggc 60
aagtccacca ctaccggtca cctgatctac aagtgcggtg gtatcgacaa gcgtaccatc 120
gagaagttcg agaaggaagc cgctgagctc ggcaagggtt ccttcaagta tgcctgggtt 180
cttgacaagc tcaaggccga gcgtgagcgt ggtatcacca tcgatatcgc cctctggaag 240
ttcgagactc ccaagtacta cgtcaccgtc atcgatgccc ccggccatcg tgatttcatc 300
aagaacatga tcactggtac ctcccaggct gattgcgcta ttctcatcat tgccgctggt 360
actggtgagt tcgaggctgg tatctccaag gatggccaga ctcgtgagca cgctcttctc 420
gcctacaccc tcggtgtcaa gcagctcatc gttgccatca acaagatgga caccacccag 480
tggtcccagg ctcgtttcga ggagatcatc aaggagacca agaacttcat caagaaggtc 540
ggctacaacc ccgccaccgt cgctttcgtc cccatctccg gcttcaacgg cgacaacatg 600
cttgaggcct ccaccaactg cccctggtac aagggttggg agaaggagac caaggccggc 660
aagtccactg gcaagaccct cctcgaggcc atcgacgcca ttgagcagcc caagcgcccg 720
accgacaagc ccctccgtct tcccctccag gatgtctaca agatcggcgg tatcggcaca 780
gtgcccgtcg gccgtatcga gactggtgtc ctcaagcccg gtatggtcgt taccttcgct 840
ccttccaacg tcaccactga agtcaagtcc gtcgagatgc accacgagca gcttgctcag 900
ggtgttcccg gtgacaacgt cggcttcaac gtgaagaacg tttccgtcaa ggatatccgt 960
cgtggtaacg ttgccggtga ctccaagaac gacccccctg tcggcgctgc ctctttcacc 1020
gcccaggtca tcgtccttaa ccaccccggt caggtcggtg ccggctacgc tcccgtcctc 1080
gattgccaca ctgcccacat tgcctgcaag ttcgccgagc tcctcgagaa gatcgatcgc 1140
cgtactggta aggctgttga gacttctccc aagttcatca agtctggtga tgctgccatc 1200
gtcaagatga ttccctccaa gcccatgtgc gtcgaggctt tcaccgacta ccctcccctc 1260
ggtcgtttcg ccgtccgtga catgcgtcag accgtcgctg tcggtgtcat caaggccgtc 1320
gacaagaccc aggctgtcgc tggcaaggtc accaagtctg ctgccaaggc tgccaagaag 1380
taa 1383

<210> 1998
<211> 1383
<212> DNA
<213> Trichoderma reesei strain QM9414

<400> 1998
atgggtaagg aggacaagac tcacatcaac gtggtcgtca tcggccacgt cgactccggc 60
aagtctacca ccactggtca cttgatctac cagtgcggtg gtatcgacaa gcgtaccatt 120
gagaagttcg agaaggaagc cgccgaactc ggcaagggtt ccttcaagta cgcgtgggtt 180
cttgacaagc tcaaggccga gcgtgagcgt ggtatcacca tcgacattgc cctctggaag 240
ttcgagactc ccaagtacta tgtcaccgtc attgacgctc ccggccaccg tgacttcatc 300
aagaacatga tcactggtac ttcccaggcc gactgcgcta tcctcatcat cgctgccggt 360
actggtgagt tcgaggctgg tatctccaag gatggccaga cccgtgagca cgctctgctc 420
gcctacaccc tgggtgtcaa gcagctcatc gtcgccatca acaagatgga cactgccaac 480
tgggccgagg ctcgttacca ggaaatcatc aaggagactt ccaacttcat caagaaggtc 540
ggcttcaacc ccaaggccgt tgctttcgtc cccatctccg gcttcaacgg tgacaacatg 600
ctcaccccct ccaccaactg cccctggtac aagggctggg agaaggagac caaggctggc 660
aagttcaccg gcaagaccct ccttgaggcc atcgactcca tcgagccccc caagcgtccc 720
acggacaagc ccctgcgtct tcccctccag gacgtctaca agatcggtgg tatcggaaca 780
gttcccgtcg gccgtatcga gactggtgtc ctcaagcccg gtatggtcgt taccttcgct 840
ccctccaacg tcaccactga agtcaagtcc gtcgagatgc accacgagca gctcgctgag 900
ggccagcctg gtgacaacgt tggtttcaac gtgaagaacg tttccgtcaa ggaaatccgc 960
cgtggcaacg ttgccggtga ctccaagaac gacccccca tgggcgccgc ttctttcacc 1020
gcccaggtca tcgtcatgaa ccaccccggc caggtcggtg ccggctacgc ccccgtcctc 1080
gactgccaca ctgcccacat tgcctgcaag ttcgccgagc tcctcgagaa gatcgaccgc 1140
cgtaccggta aggctaccga gtctgccccc aagttcatca agtctggtga ctccgccatc 1200
gtcaagatga tcccctccaa gcccatgtgc gttgaggctt tcaccgacta ccctcccctg 1260
ggtcgtttcg ccgtccgtga catgcgccag accgtcgctg tcggtgtcat caaggccgtc 1320
gagaagtcct ctgccgccgc cgccaaggtc accaagtccg ctgccaaggc cgccaagaaa 1380
taa 1383

<210> 1999
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 1999
catgtcaaya ttggtactat tggtcatgt 29

<210> 2000
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (9)..(9)
<223> n represents a modified base

<220>
<221> modified_base
<222> (9)..(9)
<223> i

<400> 2000
ccaccytcnc tcamgttgaa rcgtt 25

<210> 2001
<211> 23
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (6)..(6)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (12)..(12)
<223> n represents a modified base

<220>
<221> modified_base
<222> (6)..(6)
<223> i

<220>
<221> modified_base
<222> (12)..(12)
<223> i

<400> 2001
acyacnttra cngcygcyat yac 23

<210> 2002
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (3)..(3)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (15)..(15)
<223> n represents a modified base

<220>
<221> modified_base
<222> (3)..(3)
<223> i

<220>
<221> modified_base
<222> (15)..(15)
<223> i

<400> 2002
ccngargara gagcnmgwgg t 21

<210> 2003
<211> 21
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (9)..(9)
<223> n represents a modified base

<220>
<221> modified_base
<222> (9)..(9)
<223> i

<400> 2003
catytcranr ttgtcacctg g 21

<210> 2004
<211> 1360
<212> DNA
<213> Candida albicans strain SC5314

<400> 2004
gctgccttcg accgttctaa acctcatgtc aacattggta ctattggtca tgttgatcat 60
ggtaaaacta cattgactgc tgctatcacc aaagttttag ccgaacaagg tggtgccaac 120
ttcttggatt atggttctat tgatagagct ccagaagaaa gagctagagg tatcactatt 180
tccactgccc acgttgaata cgaaaccaag aacagacact atgcccacgt tgattgtcca 240
ggacacgctg attatatcaa aaatatgatt actggtgccg ctcaaatgga tggtgctatc 300
attgttgttg ctgccactga tggtcaaatg cctcaaacca gagaacattt gttattggcc 360
agacaagttg gtgttcaaga cttggttgtg tttgtcaaca aagtcgatac tattgatgac 420
cctgaaatgt tggaattagt cgaaatggaa atgagagaat tgttatccac ctacggtttt 480
gatggtgaca acactccagt tattatggga tctgctttaa tggctttgga agacaagaaa 540
ccagaaattg gtaaggaagc tatcttgaaa ttgttagatg ctgtcgatga acacattcca 600
actccatcaa gagacttgga acaaccattt ttgttaccag ttgaagacgt gttctccatc 660
tccggtagag gaactgttgt cactggtaga gttgaaagag gtgttttgaa gaagggtgaa 720
gaaatcgaaa ttgttggtgg ttttgacaaa ccttacaaga ctactgttac cggtattgaa 780
atgttcaaaa aagaattaga ctctgctatg gctggtgaca actgtggtgt tttgttaaga 840
ggtgttaaaa gagatgaaat caagagaggt atggttttgg ccaaaccagg tactgctact 900
tctcacaaga agttcttggc ttccttgtat attttgactt ccgaagaagg tggtcgttcc 960
actccatttg gtgaaggtta caagcctcaa tgcttcttca gaactaacga tgtcactacc 1020
acattttcat tcccagaagg agaaggtgtt gatcattctc aaatgatcat gccaggtgac 1080
aacattgaaa tggttggtga attgatcaaa tcttgtccat tagaagtcaa ccaacgtttc 1140
aacttgagag aaggtggtaa aactgttggt actggtttga ttaccagaat catcgaataa 1200
acagaatgtg cactgtgaat aataaaaaga aaagaggtat atataggtga ctttgtattt 1260
tgtattgaac aataaaattc tgtaaatagt aagggcctca gaagttttga tttgatttat 1320
gccatgtgga cttgtagaga tatccttctc aaacttcttg 1360

<210> 2005
<211> 1342
<212> DNA
<213> Schizosaccharomyces pombe

<400> 2005
aagccgcatg tcaatattgg tactattggt catgttgacc acggtaaaac gacgttgacg 60
gctgctatta ctaaatgcct ttctgatctt ggtcaagcta gttttatgga ttatagtcaa 120
attgacaagg cccccgagga aaaggcacgt ggtattacca tttcatctgc ccatgttgaa 180
tacgaaactg ctaatcgtca ctatgcccat gtggattgtc ctggtcacgc cgattacatt 240
aagaatatga ttactggtgc tgctacaatg gatggcgcta tcattgttgt ttctgctacc 300
gatggtcaaa tgcctcaaac tcgtgaacat ttgcttctgg ctcgtcaagt cggtgtaaag 360
caaattgttg tatacatcaa taaagtcgat atggtcgagc ctgatatgat cgagcttgtc 420
gaaatggaaa tgcgtgagct actctccgaa tacggatttg atggtgacaa tactccaatt 480
gttagcggca gtgctttatg tgccttagag ggtcgtgagc ctgagattgg tctcaatagt 540

attactaaat tgatggaagc tgttgatagt tatattactc ttcctgaaag aaaaacggat 600
gtccctttct tgatggccat cgaggacgtt ttttcaattt caggtcgcgg aactgtagtc 660
actggccgtg tcgagcgcgg tactttaaag aagggtgctg aaatcgaaat cgtcggttat 720
ggtagccatt taaagactac cgttactgga attgaaatgt tcaaaaagca gcttgatgcc 780
gccgttgccg gtgacaattg tggcctttta cttcgttcta tcaagcgaga gcaattaaaa 840
cgtggaatga ttgtcgctca accaggaacc gttgctcctc atcagaaatt caaggcatca 900
ttctatattt tgacaaaaga ggaaggaggt cgtcgtaccg gtttcgttga caagtatcgt 960
ccccaactgt acagtcgtac ttccgacgtt actgtcgaac ttacccaccc tgatcctaac 1020
gactcagaca aaatggttat gcctggagac aatgtcgaga tgatctgtac gcttattcac 1080
cccattgtca tcgaaaaagg acaacgcttc acagttcgtg agggtggaag cactgtaggc 1140
acagctttgg ttactgaact tttggattag tgcatttatg aacttattgg ctttaaaaat 1200
tttgcatgct gaataccaat attatgtccc ttctcagaat tctataacta cagtgtcatt 1260
attgtaataa gacttttgca tccattgaca atggtatttg atacttttat agtttctact 1320
attgttagcc aaagttataa aa 1342

<210> 2006
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2006
tggagccggt gagcgtgg 18

<210> 2007
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2007
tggagccagt gagcgtgg 18

<210> 2008
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2008
tctggagccg atgagcgtg 19

<210> 2009
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2009
ctggagccag taagcgtgg 19

<210> 2010
<211> 861
<212> DNA
<213> Klebsiella pneumoniae strain KMK107

<400> 2010
atgagtattc aacattttcg tgtcgccctt attccctttt ttgcggcatt ttgccttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgaact ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180
gaagaacgtt ttccaatgat gagcactttt aaagttctgc tatgtggtgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300
gttaagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgctgcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aactcgcctt 480
gatcgttggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgacg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccagtga gcgtgggtct 720
cgcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
acgacgggga gtcaggcaac tatggatgaa cgaaatagac agatcgctga gataggtgcc 840
tcactgatta agcattggta a 861

<210> 2011
<211> 861
<212> DNA
<213> Klebsiella pneumoniae strain CLSiS L-491

<400> 2011
atgagtattc aacatttccg tgtcgccctt attccctttt ttgcggcatt ttgctttcct 60
gtttttgctc acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca 120
cgagtgggtt acatcgagct ggatctcaac agcggtaaga tccttgagag ttttcgcccc 180
gaagaacgtt ttccaatgat gagcactttt aaagttctgc tatgtggtgc ggtattatcc 240
cgtgttgacg ccgggcaaga gcaactcggt cgccgcatac actattctca gaatgacttg 300
gttgagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta 360
tgcagtgctg ccataaccat gagtgataac actgcggcca acttacttct gacaacgatc 420
ggaggaccga aggagctaac cgcttttttg cacaacatgg gggatcatgt aacccgcctt 480
gatcgttggg aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg 540
cctgcagcaa tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct 600
tcccggcaac aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc 660
tcggcccttc cggctggctg gtttattgct gataaatctg gagccagtaa gcgtggatct 720
cgcggtatca ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac 780
atgacgggga gtcaggcaac tatggatgaa cgaaatagac agatcgctga gataggtgcc 840
tcactgatta agcattggta a 861

<210> 2012
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (29)..(29)
<223> n represents a modified base

<220>
<221> modified_base
<222> (29)..(29)
<223> n = guanidyl-MR-HEG

<400> 2012
ccgcggatta ttaaaccgcc cttccgcgna tgtcagaggg atagatcca 49

<210> 2013
<211> 353
<212> DNA
<213> Kluyvera ascorbata ATCC 33433

<400> 2013
agcttaagaa ctcttatctg gattacgcga tgtcggtcat tgttggccgt gcgctgccgg 60
atgtccgaga tggcctgaag ccggtacacc gtcgcgtact ttacgccatg aacgtattgg 120
gcaatgactg gaacaaagcc tacaaaaaat cagcccgtgt cgtgggtgac gtgatcggta 180
aatatcaccc gcatggtgat actgccgtct atgacactat cgtccgtatg gcacagccat 240
tctcactgcg atacatgctg gtagatggtc aaggtaactt cggttctgtc gatggcgact 300
ccgccgcagc gatgcgttat acggaaatcc gtatgtcgaa aatcgcccat gag 353

<210> 2014
<211> 355
<212> DNA
<213> Kluyvera georgiana ATCC 51603

<400> 2014
agctcctatc tggattatgc gatgtcggtc attgttggcc gtgcgctgcc agatgtccga 60
gatggcctga agccggtaca ccgtcgcgta ctttacgcca tgaacgtact aggcaatgac 120
tggaacaaag cctataaaaa atctgcccgt gtcgttggtg acgtaatcgg taaataccat 180
ccccatggtg actcggcggt ctatgacacg atcgtccgca tggcgcagcc attctcgctg 240
cgttatatgc tggtagacgg tcagggtaac ttcggttcta tcgacggcga ctctgcggcg 300
gcaatgcgtt atacggaaat ccgtctggcg aaaattgccc atgaactgat ggccg 355

<210> 2015
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2015
ccaagaagct caaaaacatc tg 22

<210> 2016
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2016
tadcctgtcc awacagccat 20

<210> 2017
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2017
actttgaata aggtcggtct ag 22

<210> 2018
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2018
acactaaaca aggttggttt ag 22

<210> 2019
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2019
acactaaaca aggtcggtct ag 22

<210> 2020
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2020
gtagctccag atgaaatgtt tg 22

<210> 2021
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2021
gtagctccag acgaaatgtt tg 22

<210> 2022
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2022

gtagctccag atgaaacgtt tg 22

<210> 2023
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2023
gtaactccag atgaaatgtt tg 22

<210> 2024
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2024
agtgaaaaga tggctgctgc 20

<210> 2025
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2025
agtgagaaaa tggctgctgc 20

<210> 2026
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2026
tccaagcatg cattatgcaa acg 23

<210> 2027
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2027
tcggtctaga tagagctaaa acg 23

<210> 2028
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2028
tatgctcttc aacaatcacg 20

<210> 2029
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2029
agccgttgag actttgaata ag 22

<210> 2030
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2030
cttaatggtc ttggtatcg 19

<210> 2031
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2031
cgtgactggg gttctgctat ga 22

<210> 2032
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2032
cgtgactggg gatcatcaat ga 22

<210> 2033
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2033
cgtgactggg gttctgccat ga 22

<210> 2034
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2034
atcaagaaca ctggctatgt ag 22

<210> 2035
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2035
atcaagaaca ctggctacgt ag 22

<210> 2036
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2036
atcaagaaca ctggttacgt ag 22

<210> 2037
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2037
atcaaaaata ctggttatgt ag 22

<210> 2038

<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2038
atcaagaata ctggctacgt ag 22

<210> 2039
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2039
atcaaaaaca ctggctatgt ag 22

<210> 2040
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2040
tgtgacccca gacaaaccc 19

<210> 2041
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2041
gttgagcggc agcactatct 20

<210> 2042
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2042
cacggggatt tctctattta 20

<210> 2043
<211> 20

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2043
cacggggatt actctattta 20

<210> 2044
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2044
accgtaagtc ggccaagtca 20

<210> 2045
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2045
gttctttctc cgtatcgtc 19

<210> 2046
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2046
acggggattt ttctatctat 20

<210> 2047
<211> 2160
<212> DNA
<213> Streptococcus pneumoniae strain CS109

<400> 2047
atgaacaaac caacgattct gcgcctaatc aagtatctga gcattagctt cttaagcttg 60
gttatcgcag ccattgtctt aggcggagga gtttttttct actatgttag caaggctcct 120
agcctatccg agagtaaact agttgcaaca acctctagta aaatctacga caataaaaat 180
caactcattg ctgacttggg ttctgaacgc cgcgtcaatg cccaagctaa tgatattccc 240
acagatttgg ttaaggcaat cgtttctatc gaagaccatc gcttcttcga ccacaggggg 300
attgatacca tccgtatcct gggagctttc ttgcgcaatc tgcaaagcaa ttccctccaa 360
ggtggatcaa ctctcaccca acagttgatt aaattgactt acttttcaac ctcgacttcc 420
gaccagacta tttctcgtaa ggctcaggaa gcttggttag cgattcagtt agaacaaaaa 480
gcaaccaaac aggaaatctt gacctactat ataaataagg tctacatgtc taatggcaac 540
tatggaatgc agacagcagc tcaaaactac tatggtaaag acctcaataa tttaagttta 600

cctcagttag ccttgctggc tggaatgcct caggcaccaa accaatatga cccctattca 660
catccagaag cagcccaaga ccgccgaaac ttggtcttat ctgaaatgaa aaatcaaggt 720
tacatctctg ctgaacagta tgagaaagca gtcaatacac caattactga tggactacaa 780
agtctcaaat cagcaagtaa ttaccctgct tacatggata attacctcaa ggaagtcatc 840
aatcaagttg aagaagaaac tggctataac cttctaacta ctgggatgga tgtttacaca 900
aatgtagacc aagaagctca aaaacatctg tgggatatct acaactccga tcaatacgtc 960
tcttaccctg acgatgattt gcaagtcgca tctacggtcg tagatgtttc aaatggtaaa 1020
gtcatcgcac aacttggtgc tcgtcatcaa gcaagtaatg tttcattcgg taccaaccag 1080
gccgtagaaa ccaatcgtga ctggggatca tcaatgaaac caatcactga ctatgctccc 1140
gctttagaat atggagtcta tgactctact gcttctattg tacatgatgt cccttataac 1200
tatcctggca ctgatactcc actctacaac tgggatcatg tctactttgg aaacattaca 1260
atccagtatg ctcttcaaca atcacgaaat gtcacagccg ttgagacttt gaataaggtc 1320
ggtctagata gagctaaaac cttccttaat ggtcttggta tcgactatcc aagcatgcat 1380
tatgcaaacg ccatttcaag taacacaact gaatccaaca aaaaatatgg tgcaagtagt 1440
gaaaaaatgg ctgctgccta cgctgctttt gctaatggtg gtatttatca caaaccaatg 1500
tatatcaata aaatcgtctt tagtgatggt agcgaaaaag aattttctga tgctggtaca 1560
cgagctatga aagagactac tgcctatatg atgactgaaa tgatgaaaac tgttttaact 1620
tacggaacag gacgtggagc ctacctacca tggcttccac aagcaggtaa gacaggtact 1680
tctaactata ctgacgaaga aattgaaaag tatatcaaga acactggtta cgtagctcca 1740
gatgaaatgt ttgtagggta tacccgtaaa tatgcaatgg ctgtttggac aggatactca 1800
aatcgtctaa ctccaatcat cggagatggt ttccttgttg ctggtaaagt ctatcgttca 1860
atgataactt acctttctga agatgaccaa cctggagatt ggacaatgcc agatggcttg 1920
tatagaaatg gagaattcgt atttaaaaat ggtgctcgtt ctacgtggag ctcacctgct 1980
ccacaacaac ccccatcaac tgaaagttca agctcatcat cagatagttc aacttcacag 2040
tctaactcaa ccactccaag cacaaataat agtacgacta ccaatcctaa caataatacg 2100
caacaatcaa atacaacccc tgatcaacaa aatcagaatc ctcaaccagc acaaccataa 2160

<210> 2048
<211> 2160
<212> DNA
<213> Streptococcus pneumoniae strain R6

<400> 2048
atgaacaaac caacgattct gcgcctaatc aagtatctga gcattagctt cttaagcttg 60
gttatcgcag ccattgtctt aggcggagga gtttttttct actacgttag caaggctcct 120
agcctatccg agagtaaact agttgcaaca acttctagta aaatctacga caataaaaat 180
caactcattg ctgacttggg ttctgaacgc cgcgtcaatg cccaagctaa tgatattccc 240
acagatttgg ttaaggcaat cgtttctatc gaagaccatc gcttcttcga ccacaggggg 300
attgatacca tccgtatcct gggagctttc ttgcgcaatc tgcaaagcaa ttccctccaa 360
ggtggatcag ctctcactca acagttgatt aagttgactt acttttcaac ttcgacttcc 420
gaccagacta tttctcgtaa ggctcaggaa gcttggttag cgattcagtt agaacaaaaa 480
gcaaccaagc aagaaatctt gacctactat ataaataagg tctacatgtc taatgggaac 540
tatggaatgc agacagcagc tcaaaactac tatggtaaag acctcaataa tttaagttta 600
cctcagttag ccttgctggc tggaatgcct caggcaccaa accaatatga cccctattca 660
catccagaag cagcccaaga ccgccgaaac ttggtcttat ctgaaatgaa aaatcaaggc 720
tacatctctg ctgaacagta tgagaaagca gtcaatacac caattactga tgggctacaa 780
agtctcaaat cagcaagtaa ttaccctgct tacatggata attacctcaa ggaagtcatc 840
aatcaagttg aagaagaaac aggctataac ctactcacaa ctgggatgga tgtctacaca 900
aatgtagacc aagaagctca aaaacatctg tgggatattt acaatacaga cgaatacgtt 960
gcctatccag acgatgaatt gcaagtcgct tctaccattg ttgatgtttc taacggtaaa 1020
gtcattgccc agctaggagc acgccatcag tcaagtaatg tttccttcgg aattaaccaa 1080
gcagtagaaa caaaccgcga ctggggatca actatgaaac cgatcacaga ctatgctcct 1140
gccttggagt acggtgtcta cgagtcaact gccactatcg ttcacgatga gccctataac 1200
taccctggga caaatacccc tgtttataac tgggataggg gctactttgg caacatcacc 1260
ttgcaatacg ccctgcaaca atcgcgaaac gtcccagccg tggaaactct aaacaaggtc 1320
ggactcaacc gcgccaagac tttcctaaat ggtctcggaa tcgactaccc aagtattcac 1380
tactcaaatg ccatttcaag taacacaacc gaatcagaca aaaaatatgg agcaagtagt 1440
gaaaagatgg ctgctgctta cgctgccttt gcaaatggtg gaacttacta taaaccaatg 1500
tatatccata aagtcgtctt tagtgatggg agtgaaaaag agttctctaa tgtcggaact 1560
cgtgccatga aagaaacgac agcctatatg atgaccgaca tgatgaaaac agtcttgagt 1620
tatggaactg gacgaaatgc ctatcttgct tggctccctc aggctggtaa aacaggaacc 1680
tctaactata cagacgagga aattgaaaac cacatcaaga cctctcaatt tgtagcacct 1740
gatgaactat ttgctggcta tacgcgtaaa tattcaatgg ctgtatggac aggctattct 1800
aaccgtctga caccacttgt aggcaatggc cttacggtcg ctgccaaagt ttaccgctct 1860
atgatgacct acctgtctga aggaagcaat ccagaggatt ggaatatacc agaggggctc 1920

tacagaaatg gagaattcgt atttaaaaat ggtgctcgtt ctacgtggag ctcacctgct 1980
ccacaacaac ccccatcaac tgaaagttca agctcatcat cagatagttc aacttcacag 2040
tctagctcaa ccactccaag cacaaataat agtacgacta ccaatcctaa caataatacg 2100
caacaatcaa atacaacccc tgatcaacaa aatcagaatc ctcaaccagc acaaccataa 2160

<210> 2049
<211> 2160
<212> DNA
<213> Streptococcus pneumoniae strain URU-E159

<400> 2049
atgaacaaac caacgattct gcgcctaatc aagtatctga gcattagctt cttaagcttg 60
gttatcgcag ccattgtctt aggcggagga gtttttttct actacgttag caaggctcct 120
agcctatccg agagtaaact agttgcaaca acttctagta aaatctacga caataaaaat 180
caactcattg ctgacttggg ttctgaacgc cgcgtcaatg cccaagctaa tgatattccc 240
acagatttgg ttaaggcaat cgtttctatc gaagaccatc gcttcttcga ccacaggggg 300
attgattcca tccgtatcct gggagctttc ttgcgcaatc tgcaaagtaa ttccctccaa 360
ggtggatcaa ctctcaccca acagttgatt aagttgactt acttttcaac ctcgacttcc 420
gaccagacta tttctcgtaa ggctcaggaa gcttggttag cgattcagtt agaacaaaaa 480
gcaaccaaac aggaaatctt gacctactat ataaataagg tctacatgtc taatggcaac 540
tatggaatgc agacagcagc tcaaaactac tatggtaaag acctcaataa tttaagttta 600
cctcagttag ccttgctggc tggaatgcct caggcaccaa accaatatga cccctattca 660
catccagaag cagcccaaga ccgccgaaac ttggtcttat ctgaaatgaa aaatcaaggt 720
tacatctctg ctgaacagta tgagaaagca gtcaatacac caattactga tggactacaa 780
agtctcaaat cagcaagtaa ttaccctgct tacatggata attacctcaa ggaggtcatc 840
aatcaagtag aacaagaaac tggctataac cttctaacta ctgggatgga tgtttacaca 900
aatgtagacc aagaagctca aaaacatctg tgggatatct acaactccga tcaatacgtc 960
tcttaccctg acgatgattt gcaagtcgca tctacggtcg tagatgtttc aaatggtaaa 1020
gtcatcgccc aacttggagc tcgtcaccaa gcaagtaacg tttcatttgg taccaaccaa 1080
gctgtggaaa ccaatcgtga ctggggttct gctatgaaac caatcaccga ttatgcacct 1140
gccatagaat acggtgttta tgattccact gcaactatgg ttaatgatat tccttataac 1200
tatccgggaa caagcacacc tgtctacaac tgggatagag catatttcgg taatattact 1260
ctgcaatatg ctcttcaaca atcacgaaat gtcacagccg ttgagacttt gaataaggtc 1320
ggtctagata gagctaaaac cttccttaat ggtcttggta tcgactatcc aagcatgcat 1380
tatgcaaacg ccatttcaag taatacaaca gaatctaata aacaatacgg agcaagtagt 1440
gaaaaaatgg ctgctgctta tgctgccttt gcaaatggtg gcacttacta taaaccaatg 1500
tatatccata aagtcgtctt cagtgatgga agtaaaaaag agttctctaa tgtcggaact 1560
cgtgccatga aggaaacgac agcctatatg atgaccgaca tgatgaaaac agtcttgact 1620
tatggaactg ggcgtggagc ctatcttcct tggcttcctc aagctggtaa aacaggaacc 1680
tctaactata cagatgagga agttgaaaac cacatcaaga acactggcta tgtagctcca 1740
gatgaaatgt ttgttggtta tactcgtaag tattctatgg ctgtatggac aggttattcg 1800
aatcgtttaa ctcctatcgt tggagatggt ttcctagttg cagctaaagt ttatcgctca 1860
atgataacgt atctatcaga agatactcat ccagaagact ggacgatgcc agacggactt 1920
ttcagaaatg gagaattcgt atttaaaaat ggtgctcgtt ctacgtggaa ctcacctgct 1980
ccacaacaac ccccatcaac tgaaagttca agctcatcat cagatagttc aacttcacag 2040
tctagctcaa ccactccaag cacaaataat agtacgacta ccaatcctaa caataatacg 2100
caacaatcaa atacaacccc tgatcaacaa aatcagaatc ctcaaccagc acaaccataa 2160

<210> 2050
<211> 930
<212> DNA
<213> Streptococcus pneumoniae strains 8303; 35193

<400> 2050
ctgtgggata tctacaactc cgatcaatac gtctcttacc ctgacgatga tttgcaagtc 60
gcatctacgg tcgtagatgt ttcaaatggt aaagtcatcg cccaacttgg agctcgtcac 120
caagcaagta acgtttcatt tggtaccaac caagctgtgg aaaccaatcg tgactggggt 180
tctgctatga aaccaatcac cgattatgca cctgccatag aatacggtgt ttatgattcc 240
actgcaacta tggttaatga tattccttat aactatccgg gaacaagcac acctgtctac 300
aactgggata gagcatattt cggtaatatt actctgcaat atgctcttca acaatcacga 360
aatgtcacag ccgttgagac tttgaataag gtcggtctag atagagctaa aaccttcctt 420
aatggtcttg gtatcgacta tccaagcatg cattatgcaa acgccatttc aagtaataca 480
acagaatcta ataaacaata cggagcaagt agtgaaaaaa tggctgctgc ttatgctgcc 540
tttgcaaatg gtggcactta ctataaacca atgtatatcc ataaagtcgt cttcagtgat 600

ggaagtaaaa aagagttctc taatgtcgga actcgtgcca tgaaggaaac gacagcctat 660
atgatgaccg acatgatgaa aacagtcttg acttatggaa ctgggcgtgg agcctatctt 720
ccttggcttc ctcaagctgg taaaacagga acctctaact atacagatga ggaagttgaa 780
aaccacatca agaacactgg ctatgtagct ccagatgaaa tgtttgttgg ttatactcgt 840
aagtattcta tggctgtatg gacaggttat tcgaatcgtt taactcctat cgttggagat 900
ggtttcctag ttgcagctaa agtttatcgc 930

<210> 2051
<211> 930
<212> DNA
<213> Streptococcus pneumoniae strains 63509; M11

<400> 2051
ctgtgggata tttacaatac agacgaatac gttgcctatc cagatgatga catgcaagta 60
gcttcgacta ttgtagatgt atctaatggt aacgttattg cacaacttgg tgctcgtcat 120
caagcaagta atgtttcatt cggcaccaac caggctgtgg agaccaatcg tgactggggt 180
tcttctatga aaccaatcac tgactatgct cccgctttag aatatggagt ctatgactct 240
actgcttcta ttgtacatga tgttccttat aactatcctg gcactgatac tccagtctac 300
aactgggatc atgtctactt tggaaacatt acaatccagt atgctcttca acaatcacga 360
aatgtcacag ccgttgagac tttgaataag gtcggtctag atagagctaa aaccttcctt 420
aatggtcttg gtatcgacta tccaagcatg cattatgcaa acgccatttc aagtaacaca 480
actgaatcca acaaacagta cggtgcaagt agtgaaaaga tggctgctgc ttatgccgcc 540
ttttctaatg gtggtattta ccacaaacca atgtatatca ataaaatcgt cttcagtgat 600
ggtagtgaaa aagaattttc tgatgctggt acacgagcta tgaaagaaac tactgcctat 660
atgatgaccg aaatgatgaa aactgtttta gcttacggaa ccggacgtgg tgcttaccta 720
ccatggcttc cacaagcagg taagacaggt acttctaact atactgacga cgaaattgaa 780
aagtatatca agaacactgg ctacgtagct ccagatgaaa tgtttgttgg ttatactcgt 840
aagtattcta tggctgtatg gactggttac tcaaatcgtt taactccaat cgtaggagat 900
ggtttcctag ttgctgctaa ggtttatcgc 930

<210> 2052
<211> 1195
<212> DNA
<213> Streptococcus pneumoniae strain #22/HA5

<400> 2052
gtctcttacc ctgacgatga tttgcaagtc gcatctacgg tcgtagatgt ttccaatggt 60
aaagtcatcg cccaacttgg agctcgtcac caagcaagta acgtttcatt tggtaccaac 120
caagctgtgg aaaccaatcg tgactggggt tcaacaatga aaccaatcac cgattatgca 180
cctgccatag aatacggtgt atatgattcc actgcaacta tggttaatga tattccttat 240
aactatccgg gaacaagcac acctgtctac aactgggatc gagcatattt tggtaatatt 300
actctgcaat atgcccttca acaatcacgt aatgttacag cagttgaaac attaaacaag 360
gttggtttag atcgagccaa aactttccta aatggcttag gtatcgatta cccaagcata 420
cactatgcta acgccatttc aagtaataca acagaatcta acaaacatta cggtgcaagt 480
agtgaaaaaa tggctgctgc ttatgccgcc tttgctaatg gtggtattta ccacaaacca 540
atgtatatca ataaaatcgt ctttagtgat ggtagtgaga aagaattttc tgatgctggt 600
acacgagcta tgaaagaaac tactgcctat atgatgaccg aaatgatgaa aactgtttta 660
gcttacggaa ccggacgtgg tgcttaccta ccatggcttc cacaagcagg taagacaggt 720
acttctaact atactgatga cgaaatcgaa aaacatatca agaatactgg ctacgtagct 780
ccagatgaaa tgtttgtagg ctatactcgt aagtattcta tggctgtatg gactggttac 840
tcaaatcgtt taactccaat tgttggagat ggtttcctag ttgctgctaa ggtttatcgc 900
tcaatgatat cgtatctatc agaagatgac caacctggag attggacgat gccagacggc 960
ctgttccgaa atggagaatt cgtatttaaa aatggtgctc gttctacgtg gaactcacct 1020
gctccacaac aacccccatc aactgaaagt tcaagctcat catcagatag ttcaacttca 1080
cagtctagct caaccactcc aagcacaaat aatagtacga ctaccaatcc taacaataat 1140
acgcaacaat caaatacaac ccctgatcaa caaaatcaga atcctcaacc agcac 1195

<210> 2053
<211> 930
<212> DNA
<213> Streptococcus pneumoniae strain 17619

<400> 2053

ctgtgggata tttacaatac agacgaatac gttgcctatc cagacgatga attgcaagtc 60
gcttctacca ttgttgatgt ttctaacggt aaagtcattg cccagctagg agcacgccat 120
cagtcaagta atgtttcctt cggaattaac caagcagtag aaacaaaccg cgactgggga 180
tcaactatga aaccgatcac agactatgct cctgccttgg agtacggtgt ctacgattca 240
actgctacta tcgttcacga tgagccctat aactaccctg ggacaaatac tcctgtttat 300
aactgggata ggggctactt tggcaacatc accttgcaat acgccctgca acaatcgcga 360
aacgtcccag ccgtggaaac tctaaacaag gtcggactca accgcgccaa gactttccta 420
aatggtctcg gaatcgacta cccaagtatt cactactcaa atgccatttc aagtaacaca 480
accgaatcag acaaaaaata tggagcaagt agtgaaaaga tggctgctgc ttacgctgcc 540
tttgcaaatg gtggaactta ctataaacca atgtatatcc ataaagtcgt ctttagtgat 600
gggagtgaaa aagagttctc taatgtcgga actcgtgcca tgaaggaaac gacagcctat 660
atgatgaccg aaatgatgaa aacagtcttg agttatggaa ctggacgaaa tgcctatctt 720
gcttggcttc ctcaagctgg taaaacaggt acctctaact atacagatga agaaattgaa 780
aaacacatca aaaacactgg ctatgtagct ccagatgaaa cgtttgttgg ttatactcgt 840
aagtattcta tggctgtatg gacaggttac acaaaccgtc tcacaccaat tgtgggggat 900
ggcttcacag ttgctgccaa agtttaccgc 930

<210> 2054
<211> 306
<212> DNA
<213> Streptococcus pneumoniae strain R6

<400> 2054
cgtcgcattc tctacggaat gaatgaattg ggtgtgaccc cagacaaacc ccataaaaaa 60
tctgctcgta ttacagggga tgtcatgggt aaataccacc cacacgggga ttcctctatt 120
tatgaagcca tggtccgtat ggctcaatgg tggagctacc gttacatgct tgtagatggt 180
catgggaatt ttggttccat ggatggagat agtgctgccg ctcaacgtta taccgaggca 240
cgtatgagca agattgctct ggaaatgctt cgtgatatca acaaaaatac agttgatttc 300
gttgat 306

<210> 2055
<211> 2472
<212> DNA
<213> Streptococcus pneumoniae strain 7785

<400> 2055
atgtctaaca ttcaaaacat gtccctggag gacatcatgg gagagcgctt tggtcgctac 60
tccaagtaca ttattcaaga ccgggctttg ccagatattc gtgatgggtt gaagccggtt 120
cagcgccgta ttctttattc tatgaataag gatagcaata cttttgacaa gagctaccgt 180
aagtcggcca agtcagtcgg gaacatcatg gggaatttcc acccacacgg ggattcttct 240
atctatgatg ccatggttcg tatgtcacag aactggaaaa atcgtgagat tctagttgaa 300
atgcacggta ataacggttc tatggacgga gatcctcctg cggctatgcg ttatactgag 360
gcacgtttgt ctgaaattgc aggctacctt cttcaggata tcgagaaaaa gacagttcct 420
tttgcatgga actttgacga tacggagaaa gaaccaacgg tcttgccagc agcctttcca 480
aacctcttgg tcaatggttc gactgggatt tcggctggtt atgccacaga cattcctccc 540
cataatttag ctgaggtcat agatgctgca gtttacatga ttgaccaccc aactgcaaag 600
attgataaac tcatggaatt cttacctgga ccagacttcc ctacaggggc tattattcag 660
ggtcgtgatg aaatcaagaa agcttatgag actgggaaag ggcgcgtggt tgttcgttcc 720
aagactgaaa ttgaaaagct aaaaggtggt aaggaacaaa tcgttattac tgagattcct 780
tatgaaatca ataaggccaa tctagtcaag aaaatcgatg atgttcgtgt taataacaag 840
gtagctggga ttgctgaggt tcgtgatgag tctgaccgtg atggtcttcg tatcgctatc 900
gaacttaaga aagacgctaa tactgagctt gttctcaact acttatttaa gtacaccgac 960
ctacaaatca actacaactt taatatggtg gcgattgaca atttcacacc tcgtcaggtt 1020
gggattgttc caatcctgtc tagctacatc gctcaccgtc gagaagtgat tttggcgcgt 1080
tcacgctttg acaaagaaaa ggctgagaaa cgtctccata tcgtcgaagg tttgattcgt 1140
gtgatttcga ttttggatga agtcattgct cttatccgtg cttctgagaa taaggcggac 1200
gccaaggaaa acctcaaagt tagctatgat tttacggaag aacaggctga ggctatcgta 1260
actttgcaac tgtaccgttt gaccaatacc gatgtggttg tcttgcagga agaagaagca 1320
gagcttcgtg agaagattgc tatgctggcg gctattatcg gtgatgaaag gactatgtac 1380
aatctcatga agaaagaact tcgtgaggtc aagaagaaat ttgcaactcc tcgtttgagt 1440
tctttagaag acactgcgaa agcaattgag attgatacag ctagtcttat cgctgaggaa 1500
gatacctacg tcagcgtgac caaggcaggt tacatcaagc gtaccagtcc acgttccttt 1560
gcggcttcca ccttggaaga aattggcaag cgtgatgatg accgtttgat ttttgttcaa 1620
tctgccaaga caacccagca cctcttgatg ttcacaagtc ttggaaatgt catctacaga 1680

ccaatccatg agttggcaga tattcgttgg aaggacatcg gagagcatct gagccaaacc 1740
atcacaaact ttgaaacgaa tgaagaaatc ctttatgtgg aagtactgga tcagtttgac 1800
gatgcgacaa cctactttgc agtgactcgc cttggtcaaa tcaaacgggt agagcgaaaa 1860
gaattcactc catggcggac ctatagatct aagtctgtca agtatgctaa gctcaaagac 1920
gatacagatc agattgtagc agtggctccg attaaactag atgatgttgt cttggttagt 1980
caaaatggtt atgccctgcg tttcaatatc gaagaggttc cggttgtcgg tgctaaggca 2040
gcaggtgtca aggctatgaa tttgaaagaa gatgatgtcc tccaatctgg ctttatctgt 2100
aatacttcgt ccttctacct cttgacccag cgtggaagct tgaaacgtgt ttctattgag 2160
gaaattctag caaccagccg tgccaaacga ggattacaag tcttgcgtga gttgaaaaac 2220
aaaccgcatc gtgtcttctt ggcaggagca gttgcagagc aaggatttgt tggcgatttc 2280
ttcagtacgg aagtggatgt gaacgaccaa actctgcttg tccaatccaa taaaggaaca 2340
atctatgaaa gccgattgca agacttgaac ttgtcagaac gcactagcaa tggaagcttc 2400
atttctgaca cgatttcaga tgaagaagtt tttgacgctt atcttcagga agtagttact 2460
gaagataaat aa 2472

<210> 2056
<211> 1212
<212> DNA
<213> Streptococcus pneumoniae strain StrR-16

<400> 2056
aagctcaaaa acatctgtgg gatatctaca actccgatca atacgtctct taccctgacg 60
atgatttgca agtcgcatct acggtcgtag atgtttcaaa tggtaaagtc attgcccaac 120
ttggagctcg tcaccaagca agtaacgttt catttggcac caaccaagct gtggaaacca 180
atcgtgactg gggttcaaca atgaaaccaa tcacagacta tgctcctgcc ttggaatacg 240
gtgtctacga ttcaactgct actatcgttc acgatgagcc ctataactat cctgggacag 300
ataccctgt ctataactgg gatagggggct actttggcaa tatcaccttg caatacgccc 360
tgcaacaatc gcgaaacgtc ccagccgtgg aaacactaaa caaggtcggg ctcaaccgcg 420
ccaagacttt tctaaatggt ctcggaatcg actacccaag tattcactac tcaaatgcca 480
tttcaagtaa cacaaccgag tcagacaaaa aatatggagc aagtagtgaa aagatggctg 540
ctgcttacgc tgcctttgca aatggtggaa cttactataa accaatgtat atccataaag 600
tcgtctttag tgatggaagt gaaaaagagt tctctaatgt cggaactcgc gccatgaaag 660
aaacgactgc ttacatgatg acagaaatga tgaaaacagt cttgacgtac ggaattggtc 720
gtggtgccta cctgccttgg cttcctcaag ctggtaaaac aggtacttct aactatactg 780
acgaagaaat tgaaaagtat atcaagaaca ctggttacgt aactccagat gaaatgtttg 840
tagggtatac ccgtaaatat gcaatggctg tatggacagg ctattctaac cgtctgacac 900
cacttgtagg cgatggcctt acggtcgctg ccaaggttta ccgctctatg atgacctacc 960
tgtctgaagg aagcaatcca gaggattgga atataccaga ggggctctac agaaatggag 1020
aattcgtatt taaaaatggt gctcgttcta cgtggagctc acctgctcca caacaacccc 1080
catcaactga aagttcaagc tcatcatcag atagttcaac ttcacagtct agctcaacca 1140
ctccaagcac aaataatagt acgactacca atcctaacaa taatacgcaa caatcaaata 1200
caacccctga tc 1212

<210> 2057
<211> 1242
<212> DNA
<213> Streptococcus pneumoniae strain StrR-17

<400> 2057
atgtagacca agaagctcaa aaacatctgt gggatattta caatacagac gaatacgttg 60
cctatccaga cgatgaattg caagtcgctt ctaccattgt tgatgtttct aacgggaaag 120
ttattgctca gttaggttct cgtcaccaat caagcaatgt ttccttcgga atcaaccaag 180
ctgttgaaac caaccgtgac tggggttctg ccatgaagcc aatcacagac tatgctcctg 240
ccttagagta tgacatctac gactcaactg cttcgattgt acatgatgtt ccttataact 300
atccaggtac tgatactccc ctctacaact gggataaagt ctactttgga aatattacaa 360
tccagtatgc acttcaacag tcacgtaatg tcacagccgt tgagactttg aataaggtcg 420
gtctagatag agctaaaacc tttcttaatg gtcttggtat cgactatcca agcatgcatt 480
atgcaaacgc catttcaagt aatacgactg agtcaaacaa aaagtacgga gcaagtagtg 540
agaaaatggc tgctgcttac gctgcttttg ctaacggtgg tatctaccat aaaccaatgt 600
atatcaacaa aatcgtcttt agcgatggta gctcaaaaga atacgctgat cctggtactc 660
gtgccatgaa agagacgacc gcctatatga tgacagaaat gatgaagact gtcttggcat 720
acggaacggg tcgtggtgct tatctccctt ggctacctca agctggtaag actggtacat 780
caaactatac agatgatgaa attgaaaact acatcaaaaa tactggttat gtagctccag 840
acgaaatgtt tgttggttat actcgcaaat attcaatggc ggtatggaca ggttactcaa 900

accgcctgac tcctatcgtt ggtgatggct tctatgttgc agctaaggtt taccgttcaa 960
tgatgactta tctgtctgag gataacaacc ctggcgactg gactatgcca gaaggtctct 1020
atcgaagtgg tgagttcgtc tttaaaaaag gtgctcgttc tgcatggact gctcctgctc 1080
cgcaacaggc cccaacacca gaaagttcga gctcgacatc agaaagttca acttcacagt 1140
caagctcaac tactccaagc acgaataata gtgcaaacaa taataccaat aaccagcaac 1200
caaatacaac gcctggtcaa caaaaccaga accaaaatca ga 1242

<210> 2058
<211> 1225
<212> DNA
<213> Streptococcus pneumoniae strain StrR-18

<400> 2058
gaagctcaaa aacatctgtg ggatatttac aatacagacg aatacgttgc ctatccagac 60
gatgaattgc aagtcgcttc taccattgtt gatgtttcta acgggaaagt tattgctcag 120
ttaggttctc gtcaccaatc aagcaatgtt tccttcggaa tcaaccaagc tgttgaaacc 180
aaccgtgact ggggttctgc catgaagcca atcacagact atgctcctgc cttagagtat 240
gacatctacg actcaactgc ttcgattgta catgatgttc cttataacta tccaggtact 300
gatactcccc tctacaactg ggataaagtc tactttggaa atattacaat ccagtatgca 360
cttcaacagt cacgtaatgt cacagccgtt gagactttga ataaggtcgg tctagataga 420
gctaaaacct ttcttaatgg tcttggtatc gactatccaa gcatgcatta tgcaaacgcc 480
atttcaagta atacgactga gtcaaacaaa aagtacggag caagtagtga gaaaatggct 540
gctgcttacg ctgcttttgc taacggtggt atctaccata aaccaatgta tatcaacaaa 600
atcgtcttta gcgatggtag ctcaaaagaa tacgctgatc ctggtactcg tgccatgaaa 660
gagacgaccg cctatatgat gacagaaatg atgaagactg tcttggcata cggaacgggt 720
cgtggtgctt atctcccttg gctacctcaa gctggtaaga ctggtacatc aaactataca 780
gatgatgaaa ttgaaaacta catcaaaaat actggttatg tagctccaga cgaaatgttt 840
gttggttata ctcgcaaata ttcaatggcg gtatggacag gttactcaaa ccgcctgact 900
cctatcgttg gtgatggctt ctatgttgca gctaaggttt accgttcaat gatgacttat 960
ctgtctgagg ataacaaccc tggcgactgg actatgccag aaggtctcta tcgaagtggt 1020
gagttcgtct ttaaaaaagg tgctcgttct gcatggactg ctcctgctcc gcaacaggcc 1080
ccaacaccag aaagttcgag ctcgacatca gaaagttcaa cttcacagtc aagctcaact 1140
actccaagca cgaataatag tgcaaacaat aataccaata accagcaacc aaatacaacg 1200
cctggtcaac aaaaccagaa ccaaa 1225

<210> 2059
<211> 554
<212> DNA
<213> Streptococcus pneumoniae strain StrR-38

<400> 2059
tggctacttt ggaaacatta cagtccagta tgctcttcaa caatcacgaa atgtcacagc 60
cgttgagact ttgaataagg tcggtctaga tagagctaaa accttcctca atggacttgg 120
tatcgattat ccaagcatgc tttatgcaaa cgccatttca agtaacacaa ctgaatccaa 180
caaaaagtac ggagcaagta gtgaaaaaat ggccgctgcc tacgcagctt ttgctaatgg 240
tggtacttac cacaaaccaa tgtatatcaa taaaatcgtc tttagtgatg gtagtgaaaa 300
agaattttct gatgccggta ctcgggctat gaaagaaact actgcctata tgatgaccga 360
aatgatgaaa actgtcttat tatacggaac cggacgtgga gcctacctac cttggcttcc 420
acaagcaggt aagacaggta cttctaacta tactgacgaa gaaattgaaa agtatatcaa 480
gaatgctggt tacgtagctc cagatgaaat gtttgttggt tatacccgca aatatgcaat 540
ggctgtttgg acag 554

<210> 2060
<211> 1249
<212> DNA
<213> Streptococcus pneumoniae strain StrR-57

<400> 2060
caactgggat ggatgtctac acaaatgtag accaagaagc tcaaaaacat ctgtgggata 60
tttacaatac agacgaatac gttgcctatc cagacgatga attgcaagtc gcttctacca 120
ttgttgatgt ttctaacggt aaagtcattg cccagctagg agcacgccat cagtcaagta 180
atgtttcctt cggaattaac caagcagtag aaacaaaccg cgactgggga tcaactatga 240
aaccgatcac agactatgct cctgccttgg agtacggtgt ctacgattca actgctacta 300

tcgttcacga tgagccctat aactaccctg ggacaaatac tcctgtttat aactgggata 360
ggggctactt tggcaacatc accttgcaat acgccctgca acaatcgcga aacgtcccag 420
ccgtggaaac tctaaacaag gtcggactca accgcgccaa gactttccta aatggtctag 480
gaatcgacta cccaagtatt cactactcaa atgccatttc aagtaacaca accgaatcag 540
acaaaaaata tggagcaagt agtgaaaaga tggctgctgc ttacgctgcc tttgcaaatg 600
gtggaactta ctataaacca atgtatatcc ataaagtcgt ctttagtgat gggagtgaaa 660
aagagttctc taatgtcgga actcgtgcca tgaaggaaac gacagcctat atgatgaccg 720
acatgatgaa aacagtcttg acttatggaa ctggacgaaa tgcctatctt gcttggctcc 780
ctcaggctgg taaaacagga acctctaact atacagacga ggaaattgaa aaccacatca 840
agacctctca atttgtagca cctgatgaac tatttgctgg ctatacgcgt aaatattcaa 900
tggctgtatg gacaggctat tctaaccgtc tgacaccact tgtaggcaat ggccttacgg 960
tcgctgccaa agtttaccgc tctatgatga cctacctgtc tgaaggaagc aatccagaag 1020
attggaatat accagagggg ctctacagaa atggagaatt cgtatttaaa aatggtgctc 1080
gttctacgtg gagctcacct gctccacaac aacccccatc aactgaaagt tcaagctcat 1140
catcagatag ttcaacttca cagtctagct caaccactcc aagcacaaat aatagtacga 1200
ctaccaatcc taacaataat acgcaacaat caaatacaac ccctgatca 1249

<210> 2061
<211> 579
<212> DNA
<213> Streptococcus pneumoniae strain StrR-60

<400> 2061
gaagttgaac agactggtca ccaagctcct tcatatccgc caacactgca attttcttgc 60
caccttcatt ggctggaatg gcagagaaag tctctaaaat cagtttcata gcagttggat 120
tggcattata aacatctgac aggatatctg ctccattggc tgctttcttc cactcggtac 180
ggttacgcgt caattcaaga tgttggaagg ccaaacgaat ttgctcctct gaaactcctt 240
cttgcaaggc aacataggat gcaatcatag catttgtcgc attgtacttg ccagttactg 300
gcaaatcaag ggcttgctct aagaaattga ccttgaaggt cagactatct ttgcgctcaa 360
ccaagtcggt aattcccagc tctgctcctt gaccaaaacg aaccaccttt ttatcagttg 420
gcaaatagtc ctctacgata gggtcagccg gcgctaaaag caaggaacct gaagccattc 480
cgtctgcaat ttgcattttt cctttagcaa tctcagaacg gtctttgaaa aaggccaaat 540
gagcttctcc aaccaaggtc acgatggctg tatggacag 579

<210> 2062
<211> 1216
<212> DNA
<213> Streptococcus pneumoniae strain StrR-63

<400> 2062
aagctcaaaa acatctgtgg gatatctaca actccgatca atacgtctct taccctgacg 60
atgatttgca agtcgcatct acggtcgtag atgtttcaaa tggtaaagtc atcgcacaac 120
ttggtgctcg tcatcaagca agtaatgttt cattcggtac caaccaggcc gtagaaacca 180
atcgtgactg gggatcatca atgaaaccaa tcactgacta tgctcccgct ttagaatatg 240
gagtctatga ctctactgct tctattgtac atgatgtccc ttataactat cctggcactg 300
atactccact ctacaactgg gatcatgtct actttggaaa cattacaatc cagtatgctc 360
ttcaacaatc acgaaatgtc acagccgttg agactttgaa taaggtcggt ctagatagag 420
ctaaaacctt ccttaatggt cttggtatcg actatccaag catgcattat gcaaacgcca 480
tttcaagtaa cacaactgaa tccaacaaaa aatatggtgc aagtagtgaa aaaatggctg 540
ctgcctacgc tgcttttgct aatggtggta tttatcacaa accaatgtat atcaataaaa 600
tcgtctttag tgatggtagc gaaaaagaat tttctgatgc tggtacacga gctatgaaag 660
agactactgc ctatatgatg actgaaatga tgaaaactgt tttaacttac ggaacaggac 720
gtggagccta cctaccatgg cttccacaag caggtaagac aggtacttct aactatactg 780
acgaagaaat tgaaaagtat atcaagaaca ctggttacgt agctccagat gaaatgtttg 840
tagggtatac ccgtaaatat gcaatggctg tttggacagg atactcaaat cgtctaactc 900
caatcatcgg agatggtttc cttgttgctg gtaaagtcta tcgttcaatg ataacttacc 960
tttctgaaga tgaccaacct ggagattgga caatgccaga tggcttgtat agaaatggag 1020
aattcgtatt taaaaatggt gctcgttcta cgtggagctc acctgctcca caacaacccc 1080
catcaactga aagttcaagc tcatcatcag atagttcaac ttcacagtct agctcaacca 1140
ctccaagcac aaataatagt acgactacca atcctaacaa taatacgcaa caatcaaata 1200
caacccctga tcaaca 1216

<210> 2063

<211> 810
<212> DNA
<213> Streptococcus pneumoniae ATCC 700673

<400> 2063
aatacgtctc ttaccctgac gatgatttgc aagtcgcatc cacggtcgta gatgtttcaa 60
atggtaaagt catcgcccaa cttggagctc gtcaccaagc aagtaacgtt tcatttggta 120
ccaaccaagc tgtggaaacc aatcgtgact ggggttcaac aatgaaaccc atcaccgatt 180
atgcacctgc catagaatac ggtgtatatg attccactgc aactatggtt aatgatattc 240
cttataacta tccgggaaca agcacacctg tctacaactg ggatcgagca tattttggta 300
atattactct gcaatatgcc cttcaacaat ctcgtaacgt acccgccgtt gagacactaa 360
acaaggttgg tttagataga gctaaaagtt tcctaaatgg tttaggaatc gactatcctg 420
taatgcacta ttcaaatgct atttcaagta atactaccga atctagtaaa cagtacgggg 480
caagtagtga aaaaatggcc actgcctatg ccgcattcgc aaacggcggt atttaccaca 540
aaccaatgta catcaataag gttgtcttta gcgatggtag cgaaaaagaa ttttctgacc 600
ctggcacaag agccatgaaa gaaacgactg cttacatgat gacagagatg atgaaaacag 660
tctggactta cggaactggt cgcggtgcct acctaccttg gcttccacaa gcaggtaaaa 720
caggtacttc taactatact gacgaagaaa ttgaaaagta tatcaagaac actggttacg 780
tagctccaga tgaaatgttt gtagggtata 810

<210> 2064
<211> 782
<212> DNA
<213> Streptococcus pneumoniae ATCC 700678

<400> 2064
tcttaccctg acgatgattt gcaagtcgca tctacggtcg tagatgtttc aaatggtaaa 60
gtcatcgccc aacttggagc tcgtcaccaa gcaagtaacg tttcatttgg taccaaccaa 120
gctgtggaaa ccaatcgtga ctggggatca actatgaaac caatcacaga ctatgctcct 180
gccttggagt acggtgtcta cgattcaact gctactatcg ttcacgatga gccctataac 240
taccctggga cagatatccc tctctataac tgggatcgag catatttcgg taatattact 300
ctgcaatatg cccttcaaca atctcgtaac gtacctgccg ttgaaacact aaacaaggtc 360
ggtctagata aggctaaaac cttccttaat ggtcttggta tcgactatcc aagcatgcat 420
tatgcaaacg ccatttcaag taatacaact gaatccaaca aaaaatatgg tgcaagtagt 480
gaaaaaatag ctaccgccta tgccgcattc gcaaatggtg gtatttacca caaaccaatg 540
tacatcaata aagttgtctt tagcgatggt agcgaaaaag aattttctga ccctggcaca 600
agagccatga aagaaacgac tgcttacatg atgacagaaa tgatgaaaac agtctggacg 660
tacggaactg gtcgtggtgc ctacctgcct tggcttcctc aagctggtaa aacaggtacc 720
tctaactata ctgacgaaga aattgaaaag tatatcaaga acactggtta cgtagctcca 780
ga 782

<210> 2065
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2065
ccaggacgtg gaggcgatca ca 22

<210> 2066
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2066

caccgacagc gagccgatca ga 22

<210> 2067
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2067
agctgagcca attcatgg 18

<210> 2068
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2068
attcatggac cagaacaac 19

<210> 2069
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2069
cgctgtcggg gttgaccc 18

<210> 2070
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2070
gttgacccac aagcgccg 18

<210> 2071
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2071
cgactgtcgg cgctgggg 18

<210> 2072
<211> 3534
<212> DNA
<213> Mycobacterium tuberculosis strain Rv

<400> 2072
gtgctggaag gatgcatctt ggcagattcc cgccagagca aaacagccgc tagtcctagt 60
ccgagtcgcc cgcaaagttc ctcgaataac tccgtacccg gagcgccaaa ccgggtctcc 120
ttcgctaagc tgcgcgaacc acttgaggtt ccgggactcc ttgacgtcca gaccgattcg 180
ttcgagtggc tgatcggttc gccgcgctgg cgcgaatccg ccgccgagcg gggtgatgtc 240
aacccagtgg gtggcctgga agaggtgctc tacgagctgt ctccgatcga ggacttctcc 300
gggtcgatgt cgttgtcgtt ctctgaccct cgtttcgacg atgtcaaggc acccgtcgac 360
gagtgcaaag acaaggacat gacgtacgcg gctccactgt tcgtcaccgc cgagttcatc 420
aacaacaaca ccggtgagat caagagtcag acggtgttca tgggtgactt cccgatgatg 480
accgagaagg gcacgttcat catcaacggg accgagcgtg tggtggtcag ccagctggtg 540
cggtcgcccg gggtgtactt cgacgagacc attgacaagt ccaccgacaa gacgctgcac 600
agcgtcaagg tgatcccgag ccgcggcgcg tggctcgagt ttgacgtcga caagcgcgac 660
accgtcggcg tgcgcatcga ccgcaaacgc cggcaaccgg tcaccgtgct gctcaaggcg 720
ctgggctgga ccagcgagca gattgtcgag cggttcgggt tctccgagat catgcgatcg 780
acgctggaga aggacaacac cgtcggcacc gacgaggcgc tgttggacat ctaccgcaag 840
ctgcgtccgg gcgagccccc gaccaaagag tcagcgcaga cgctgttgga aaacttgttc 900
ttcaaggaga agcgctacga cctggcccgc gtcggtcgct ataaggtcaa caagaagctc 960
gggctgcatg tcggcgagcc catcacgtcg tcgacgctga ccgaagaaga cgtcgtggcc 1020
accatcgaat atctggtccg cttgcacgag ggtcagacca cgatgaccgt tccgggcggc 1080
gtcgaggtgc cggtggaaac cgacgacatc gaccacttcg gcaaccgccg cctgcgtacg 1140
gtcggcgagc tgatccaaaa ccagatccgg gtcggcatgt cgcggatgga gcgggtggtc 1200
cgggagcgga tgaccaccca ggacgtggag gcgatcacac cgcagacgtt gatcaacatc 1260
cggccggtgg tcgccgcgat caaggagttc ttcggcacca gccagctgag ccaattcatg 1320
gaccagaaca acccgctgtc ggggttgacc cacaagcgcc gactgtcggc gctggggccc 1380
ggcggtctgt cacgtgagcg tgccgggctg gaggtccgcg acgtgcaccc gtcgcactac 1440
ggccggatgt gcccgatcga aacccctgag gggcccaaca tcggtctgat cggctcgctg 1500
tcggtgtacg cgcgggtcaa cccgttcggg ttcatcgaaa cgccgtaccg caaggtggtc 1560
gacggcgtgg ttagcgacga gatcgtgtac ctgaccgccg acgaggagga ccgccacgtg 1620
gtggcacagg ccaattcgcc gatcgatgcg gacggtcgct tcgtcgagcc gcgcgtgctg 1680
gtccgccgca aggcgggcga ggtggagtac gtgccctcgt ctgaggtgga ctacatggac 1740
gtctcgcccc gccagatggt gtcggtggcc accgcgatga ttcccttcct ggagcacgac 1800
gacgccaacc gtgccctcat gggggcaaac atgcagcgcc aggcggtgcc gctggtccgt 1860
agcgaggccc cgctggtggg caccgggatg gagctgcgcg cggcgatcga cgcggcgacg 1920
tcgtcgtcgc aagaaagcgg cgtcatcgag gaggtgtcgg ccgactacat cactgtgatg 1980
cacgacaacg gcacccggcg tacctaccgg atgcgcaagt ttgcccggtc caaccacggc 2040
acttgcgcca accagtgccc catcgtggac gcgggcgacc gagtcgaggc cggtcaggtg 2100
atcgccgacg gtccctgtac tgacgacggc gagatggcgc tgggcaagaa cctgctggtg 2160
gccatcatgc cgtgggaggg ccacaactac gaggacgcga tcatcctgtc caaccgcctg 2220
gtcgaagagg acgtgctcac ctcgatccac atcgaggagc atgagatcga tgctcgcgac 2280
accaagctgg gtgcggagga gatcacccgc gacatcccga acatctccga cgaggtgctc 2340
gccgacctgg atgagcgggg catcgtgcgc atcggtgccg aggttcgcga cggggacatc 2400
ctggtcggca aggtcacccc gaagggtgag accgagctga cgccggagga gcggctgctg 2460
cgtgccatct tcggtgagaa ggcccgcgag gtgcgcgaca cttcgctgaa ggtgccgcac 2520
ggcgaatccg gcaaggtgat cggcattcgg gtgttttccc gcgaggacga ggacgagttg 2580
ccggccggtg tcaacgagct ggtgcgtgtg tatgtggctc agaaacgcaa gatctccgac 2640
ggtgacaagc tggccggccg gcacggcaac aagggcgtga tcggcaagat cctgccggtt 2700
gaggacatgc cgttccttgc cgacggcacc ccggtggaca ttattttgaa cacccacggc 2760
gtgccgcgac ggatgaacat cggccagatt ttggagaccc acctgggttg gtgtgcccac 2820
agcggctgga aggtcgacgc cgccaagggg gttccggact gggccgccag gctgcccgac 2880
gaactgctcg aggcgcatgc gaacgccatt gtgtcgacgc cggtgttcga cggcgcccag 2940
gaggccgagc tgcagggcct gttgtcgtgc acgctgccca accgcgacgg tgacgtgctg 3000
gtcgacgccg acggcaaggc catgctcttc gacgggcgca gcggcgagcc gttcccgtac 3060
ccggtcacgg ttggctacat gtacatcatg aagctgcacc acctggtgga cgacaagatc 3120
cacgcccgct ccaccgggcc gtactcgatg atcacccagc agccgctggg cggtaaggcg 3180
cagttcggtg gccagcggtt cggggagatg gagtgctggg ccatgcaggc ctacggtgct 3240
gcctacaccc tgcaggagct gttgaccatc aagtccgatg acaccgtcgg ccgcgtcaag 3300
gtgtacgagg cgatcgtcaa gggtgagaac atcccggagc cgggcatccc cgagtcgttc 3360
aaggtgctgc tcaaagaact gcagtcgctg tgcctcaacg tcgaggtgct atcgagtgac 3420
ggtgcggcga tcgaactgcg cgaaggtgag gacgaggacc tggagcgggc cgcggccaac 3480
ctgggaatca atctgtcccg caacgaatcc gcaagtttcg aggatcttgc gtaa 3534

<210> 2073
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2073
ccgagcaaca tgattgaacc atccaccaac tggctcgg 38

<210> 2074
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2074
ccgagcaaca tgattgaagc ttccaccaac tggctcgg 38

<210> 2075
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2075
ccgagccagg ttctgaagtc tctgcattat taggtgctcg g 41

<210> 2076
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2076
ccgagcygay aacattttca gattcaccca rgcgctcgg 39

<210> 2077
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2077
ccgagcaacc gatccagctc cagctacgct cgg 33

<210> 2078
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2078
ccgagccttg gtcttcggcc aaatgaacgc tcgg 34

<210> 2079
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2079
ccgagcgttc agttacttca gtccaagccg gctcgg 36

<210> 2080
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2080
ccgagccgaa gagggccaag atgtcgctcg g 31

<210> 2081
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2081
gratyrtyaa agttggtgag gaag 24

<210> 2082
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2082
cmacttcatc ycgcttcgta cc 22

<210> 2083

<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (27)..(27)
<223> n represents a modified base

<220>
<221> modified_base
<222> (27)..(27)
<223> i

<400> 2083
ccgccgatgt tccgtaaatt acttgangaa ggtcgagccg gcgg 44

<210> 2084
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2084
cacgcgtcaa cacccgtaca agtcgtcttt tgcgcgtg 38

<210> 2085
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2085
caaactaaag aacatatctt gcta 24

<210> 2086
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2086
atataatttg catcaccttc aag 23

<210> 2087
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2087
tcagctcgtg ggattaggag ag 22

<210> 2088
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2088
aggcttcacg ctgttaggct ga 22

<210> 2089
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2089
atgctgaact tattgacctt 20

<210> 2090
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2090
cgttactgga gtcgaaatg 19

<210> 2091
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2091
cgcgacttga gatggaactt agtgagcttc ttggtcgcg 39

<210> 2092
<211> 38
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2092
cgcgacgaaa gaacttcctg aaggtcgtgc aggtccag 38

<210> 2093
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2093
tgttggcaat cgaagacacc 20

<210> 2094
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2094
ttcaatttct tgacctactt tcaa 24

<210> 2095
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2095
cggtcgggtt gaacgtgg 18

<210> 2096
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2096
cgcgaccggt accacggcca gtaatcgtgt cgcg 34

<210> 2097
<211> 1185
<212> DNA
<213> Mycoplasma pneumoniae ATCC 29342

<400> 2097
atggcaagag agaaatttga ccgatctaaa ccccacgtta atgtaggtac tattggccac 60

attgaccacg gtaaaacaac tttaacagca gctatttgta ctgtattagc aaaagaaggt 120
aaatcagctg ctactcgtta cgaccaaatc gataaggctc cggaagaaaa agcacgggga 180
attacgatta actccgctca cgtggagtac tcctctgaca agcgtcacta tgctcacgtt 240
gactgtccag gacacgctga ctacattaag aacatgatta ctggtgctgc acaaatggat 300
ggtgccattc tagtagtttc agcaactgac agtgttatgc cccaaacccg tgaacacatt 360
ttgttggccc gccaagtggg tgtgccacgc atggtagtgt tcctaaacaa gtgtgacatt 420
gcaactgatg aagaagtgca agagttagta gcagaagagg tacgtgactt attaacttct 480
tacggctttg atggcaagaa cacccctatt atttatggtt ctgcacttaa agcgcttgaa 540
ggtgatccta agtgggaagc taagatccat gatttaatga atgcagttga tgaatggatt 600
ccaactcctg aacgtgaagt ggacaaaccc ttcttgttgg caatcgaaga caccatgacg 660
attactggcc gtggtaccgt ggttaccggt cgggttgaac gtggtgaatt gaaagtaggt 720
caagaaattg aaatcgttgg tttacgtcca atccgtaaag cagttgttac cggaatcgaa 780
atgttcaaaa aggaacttga ttcagcaatg gctggggaca acgctggggt attactccgt 840
ggtgtggacc gtaaagaagt ggaacgtggt caagtgttag ctaaaccagg ttcgattaaa 900
ccgcacaaga aatttaaagc ggaaatctat gctttaaaga aggaagaagg tggtcgtcac 960
accggtttct taaacggtta ccgtccccaa ttctacttcc gtactacaga cgttactggt 1020
tcgatttccc taccagaaaa caccgaaatg gtgctaccag gtgacaatac ctcgattaca 1080
gttgaactaa ttgcaccaat tgcttgtgaa aaaggtagta agttctccat ccgtgaaggt 1140
ggtcgaacgg ttggtgctgg ttcagtcacg gaagtgcttg aatag 1185

<210> 2098
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2098
ctgagtcaca ccgacaaacg tc 22

<210> 2099
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2099
ccaggactga acgggatacg aa 22

<210> 2100
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2100
gcgagacgat aggttgtc 18

<210> 2101
<211> 2609
<212> DNA
<213> Mycobacterium tuberculosis strain H37Rv

<400> 2101

cagcccgcga gcgtaacctg gctgcgattt ccggcgcgga ttttcgcagt gcggttacgc 60
tcggaaagcg cgggcctcgc ccacgcggcg gatgatgtca gcggggtggt cctcggcgac 120
gacccggacc acgatccacc cgtagcggtg ctggactttc tcgtgccgga ggatgtcttt 180
ccggtagtgg tagcgactgg tcagatggtg gtcgccgtca tactcggccg cgaccttgat 240
gtcttgccag cccatatcca aatgggcttc cgcccagccc cattcgttgc gcaccgcgat 300
ctgcgtctgg gggcgcggaa agccggcgcg gatcaacaac aagcgcagcc aggtttcctt 360
gggggactgg gcaccgccgt cgacgaggtc cagagcggct cttgcggcct tcatgccacg 420
gcggccccga tagcgctcga tcagcggctc gacgtcggcc accttcaaat cggtggcctg 480
tatcagggcg tcgacggccg cgacggcggg gtccaatgga aatcgactgg tcaggtcgag 540
cgccgttcgc tccggtgtgg tcacgcgcat gccctcgatg acgcagatct cgtcgggctc 600
gatgcgctct tcccagactt gcagccccgg ggcacggcgg cggttggtgt cgatgatcgc 660
ggcgggaaga tccgcgtcga tccacttggc gccatggaag gcagaagccg agtagccggc 720
cagcacgccg cggcggcgcg agcgcagcca cagcgctttt gcacgcaatt gcgcggtcag 780
ttccacaccc tgcggcacgt acacgtcttt atgtagcgcg acatacctgc tgcgcaattc 840
gtagggcgtc aatacacccg cagccagggc ctcgctgccc agaaagggat ccgtcatggt 900
cgaagtgtgc tgagtcacac cgacaaacgt cacgagcgta accccagtgc gaaagttccc 960
gccggaaatc gcagccacgt tacgctcgtg gacataccga tttcggcccg gccgcggcga 1020
gacgataggt tgtcggggtg actgccacag ccactgaagg ggccaaaccc ccattcgtat 1080
cccgttcagt cctggttacc ggaggaaacc gggggatcgg gctggcgatc gcacagcggc 1140
tggctgccga cggccacaag gtggccgtca cccaccgtgg atccggagcg ccaaaggggc 1200
tgtttggcgt cgaatgtgac gtcaccgaca gcgacgccgt cgatcgcgcc ttcacggcgg 1260
tagaagagca ccagggtccg gtcgaggtgc tggtgtccaa cgccggccta tccgcggacg 1320
cattcctcat gcggatgacc gaggaaaagt tcgagaaggt catcaacgcc aacctcaccg 1380
gggcgttccg ggtggctcaa cgggcatcgc gcagcatgca gcgcaacaaa ttcggtcgaa 1440
tgatattcat aggttcggtc tccggcagct ggggcatcgg caaccaggcc aactacgcag 1500
cctccaaggc cggagtgatt ggcatggccc gctcgatcgc ccgcgagctg tcgaaggcaa 1560
acgtgaccgc gaatgtggtg gccccgggct acatcgacac cgatatgacc cgcgcgctgg 1620
atgagcggat tcagcagggg gcgctgcaat ttatcccagc gaagcgggtc ggcacccccg 1680
ccgaggtcgc cggggtggtc agcttcctgg cttccgagga tgcgagctat atctccggtg 1740
cggtcatccc ggtcgacggc ggcatgggta tgggccactg acacaacaca aggacgcaca 1800
tgacaggact gctggacggc aaacggattc tggttagcgg aatcatcacc gactcgtcga 1860
tcgcgtttca catcgcacgg gtagcccagg agcagggcgc ccagctggtg ctcaccgggt 1920
tcgaccggct gcggctgatt cagcgcatca ccgaccggct gccggcaaag gccccgctgc 1980
tcgaactcga cgtgcaaaac gaggagcacc tggccagctt ggccggccgg gtgaccgagg 2040
cgatcggggc gggcaacaag ctcgacgggg tggtgcattc gattgggttc atgccgcaga 2100
ccgggatggg catcaacccg ttcttcgacg cgccctacgc ggatgtgtcc aagggcatcc 2160
acatctcggc gtattcgtat gcttcgatgg ccaaggcgct gctgccgatc atgaaccccg 2220
gaggttccat cgtcggcatg gacttcgacc cgagccgggc gatgccggcc tacaactgga 2280
tgacggtcgc caagagcgcg ttggagtcgg tcaacaggtt cgtggcgcgc gaggccggca 2340
agtacggtgt gcgttcgaat ctcgttgccg caggccctat ccggacgctg gcgatgagtg 2400
cgatcgtcgg cggtgcgctc ggcgaggagg ccggcgccca gatccagctg ctcgaggagg 2460
gctgggatca gcgcgctccg atcggctgga acatgaagga tgcgacgccg gtcgccaaga 2520
cggtgtgcgc gctgctgtct gactggctgc cggcgaccac gggtgacatc atctacgccg 2580
acggcggcgc gcacacccaa ttgctctag 2609

<210> 2102
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2102
caccttcacc ctgaccgacg 20

<210> 2103
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

Oligonucleotide

<400> 2103
cgaaccagcg gaaatagttg gac 23

<210> 2104
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (12)..(12)
<223> n represents a modified base

<220>
<221> modified_base
<222> (12)..(12)
<223> i

<400> 2104
ctgggcatgg cncgagtc 18

<210> 2105
<211> 3297
<212> DNA
<213> Mycobacterium tuberculosis strain H37Rv

<400> 2105
atgacacagt gcgcgagcag acgcaaaagc accccaaatc gggcgatttt gggggctttt 60
gcgtctgctc gcgggacgcg ctgggtggcc accatcgccg ggctgattgg ctttgtgttg 120
tcggtggcga cgccgctgct gcccgtcgtg cagaccaccg cgatgctcga ctggccacag 180
cgggggcaac tgggcagcgt gaccgccccg ctgatctcgc tgacgccggt cgactttacc 240
gccaccgtgc cgtgcgacgt ggtgcgcgcc atgccacccg cgggcggggt ggtgctgggc 300
accgcaccca agcaaggcaa ggacgccaat ttgcaggcgt tgttcgtcgt cgtcagcgcc 360
cagcgcgtgg acgtcaccga ccgcaacgtg gtgatcttgt ccgtgccgcg cgagcaggtg 420
acgtccccgc agtgtcaacg catcgaggtc acctctaccc acgccggcac cttcgccaac 480
ttcgtcgggc tcaaggaccc gtcgggcgcg ccgctgcgca gcggcttccc cgaccccaac 540
ctgcgcccgc agattgtcgg ggtgttcacc gacctgaccg ggcccgcgcc gcccgggctg 600
gcggtctcgg cgaccatcga cacccggttc tccacccggc cgaccacgct gaaactgctg 660
gcgatcatcg gggcgatcgt ggccaccgtc gtcgcactga tcgcgttgtg gcgcctggac 720
cagttggacg ggcggggctc aattgcccag ctcctcctca ggccgttccg gcctgcatcg 780
tcgccgggcg gcatgcgccg gctgattccg gcaagctggc gcaccttcac cctgaccgac 840
gccgtggtga tattcggctt cctgctctgg catgtcatcg gcgcgaattc gtcggacgac 900
ggctacatcc tgggcatggc ccgagtcgcc gaccacgccg gctacatgtc caactatttc 960
cgctggttcg gcagcccgga ggatcccttc ggctggtatt acaacctgct ggcgctgatg 1020
acccatgtca gcgacgccag tctgtggatg cgcctgccag acctggccgc cgggctagtg 1080
tgctggctgc tgctgtcgcg tgaggtgctg ccccgcctcg ggccggcggt ggaggccagc 1140
aaacccgcct actgggcggc ggccatggtc ttgctgaccg cgtggatgcc gttcaacaac 1200
ggcctgcggc cggagggcat catcgcgctc ggctcgctgg tcacctatgt gctgatcgag 1260
cggtccatgc ggtacagccg gctcacaccg gcggcgctgg ccgtcgttac cgccgcattc 1320
acactgggtg tgcagcccac cggcctgatc gcggtggccg cgctggtggc cggcggccgc 1380
ccgatgctgc ggatcttggt gcgccgycat cgcctggtcg gcacgttgcc gttggtgtcg 1440
ccgatgctgg ccgccggcac cgtcatcctg accgtggtgt tcgccgacca gaccctgtca 1500
acggtgttgg aagccaccag ggttcgcgcc aaaatcgggc cgagccaggc gtggtatacc 1560
gagaacctgc gttactacta cctcatcctg cccaccgtcg acggttcgct gtcgcggcgc 1620
ttcggctttt tgatcaccgc gctatgcctg ttcaccgcgg tgttcatcat gttgcggcgc 1680
aagcgaattc ccagcgtggc ccgcggaccg gcgtggcggc tgatgggcgt catcttcggc 1740
accatgttct tcctgatgtt cacgcccacc aagtgggtgc accacttcgg gctgttcgcc 1800
gccgtagggg cggcgatggc cgcgctgacg acggtgttgg tatccccatc ggtgctgcgc 1860

tggtcgcgca accggatggc gttcctggcg gcgttattct tcctgctggc gttgtgttgg 1920
gccaccacca acggctggtg gtatgtctcc agctacggtg tgccgttcaa cagcgcgatg 1980
ccgaagatcg acgggatcac agtcagcaca atctttttcg ccctgtttgc gatcgccgcc 2040
ggctatgcgg cctggctgca cttcgcgccc cgcggcgccg gcgaagggcg gctgatccgc 2100
gcgctgacga cagccccggt accgatcgtg gccggtttca tggcggcggt gttcgtcgcg 2160
tccatggtgg ccgggatcgt gcgacagtac ccgacctact ccaacggctg gtccaacgtg 2220
cgggcgtttg tcggcggctg cggactggcc gacgacgtac tcgtcgagcc tgataccaat 2280
gcgggtttca tgaagccgct ggacggcgat tcgggttctt ggggcccctt gggcccgctg 2340
ggtggagtca acccggtcgg cttcacgccc aacggcgtac cggaacacac ggtggccgag 2400
gcgatcgtga tgaaacccaa ccagcccggc accgactacg actgggatgc gccgaccaag 2460
ctgacgagtc ctggcatcaa tggttctacg gtgccgctgc cctatgggct cgatcccgcc 2520
cgggtaccgt tggcaggcac ctacaccacc ggcgcacagc aacagagcac actcgtctcg 2580
gcgtggtatc tcctgcctaa gccggacgac gggcatccgc tggtcgtggt gaccgccgcg 2640
ggcaagatcg ccggcaacag cgtgctgcac gggtacaccc ccgggcagac tgtggtgctc 2700
gaatacgcca tgccgggacc cggagcgctg gtacccgccg ggcggatggt gcccgacgac 2760
ctatacggag agcagcccaa ggcgtggcgc aacctgcgct tcgcccgagc aaagatgccc 2820
gccgatgccg tcgcggtccg ggtggtggcc gaggatctgt cgctgacacc ggaggactgg 2880
atcgcggtga ccccgccgcg ggtaccggac ctgcgctcac tgcaggaata tgtgggctcg 2940
acgcagccgg tgctgctgga ctgggcggtc ggtttggcct tcccgtgcca gcagccgatg 3000
ctgcacgcca atggcatcgc cgaaatcccg aagttccgca tcacaccgga ctactcggct 3060
aagaagctgg acaccgacac gtgggaagac ggcactaacg gcggcctgct cgggatcacc 3120
gacctgttgc tgcgggccca cgtcatggcc acctacctgt cccgcgactg ggcccgcgat 3180
tggggttccc tgcgcaagtt cgacaccctg gtcgatgccc ctcccgccca gctcgagttg 3240
ggcaccgcga cccgcagcgg cctgtggtca ccgggcaaga tccgaattgg tccatag 3297

<210> 2106
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2106
gcgagcagag cacgccctcc tcgccgctcg c 31

<210> 2107
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2107
gcgagctccc catctctggt tggcacgctc gc 32

<210> 2108
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2108
gcgggcaact tcrtcaagaa ggttggttac aacccgcccg c 41

<210> 2109

<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2109
gcgggcccaa tctctggttg gaayggtgac aagcccgc 38

<210> 2110
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2110
gcgggccctt aacgatttca gcgaatctgg attcagcccg c 41

<210> 2111
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2111
gcgggcatga ttgaagccac caccaacgct tcctggcccg c 41

<210> 2112
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2112
gcgggcttga tgaagttttg ggtttccttg acaatttgcc cgc 43

<210> 2113
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2113
gcgggcacaa gggttggact aaggaaacca aggcagcccg c 41

<210> 2114
<211> 41

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2114
gcgggcatcg atgctattga accacctgtc agaccgcccg c 41

<210> 2115
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2115
gcgggcttga tgatttcctc gaatctagat tgggcccgc 39

<210> 2116
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2116
gcgggcggta agtccaccgg taagaccttg ttggcccgc 39

<210> 2117
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2117
gcgggcgacg ccattgagcc accttcgaga gcccgc 36

<210> 2118
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2118
gcgggctcct tgacaatttc ttcgtatctg ttcttggccc gc 42

<210> 2119
<211> 40
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2119
gcgggcttac aaccctaagg ctgttccatt cgttgcccgc 40

<210> 2120
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2120
gcgggcagaa accaaggctg gtaaggttac cggtagcccg c 41

<210> 2121
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (8)..(8)
<223> n represents a modified base

<220>
<221> modified_base
<222> (8)..(8)
<223> i

<400> 2121
cgaccgcnag ccgcacacca agttccggtc g 31

<210> 2122
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2122
ccgagcgaat gtaggagtcc agggtctctg ctcgg 35

<210> 2123
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

Oligonucleotide

<400> 2123
tctaccactg aagcattac 19

<210> 2124
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2124
taggtactgt aggtttattg 20

<210> 2125
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2125
cacgcggatt ttgaatctct tcctctagta gcgcgtg 37

<210> 2126
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2126
atatcagaga ctgatgag 18

<210> 2127
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2127
tagcatattc agagaatatt gt 22

<210> 2128
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2128
caacgctgga gaatctatat ttgtagaaac tgcgttg 37

<210> 2129
<211> 7733
<212> DNA
<213> Clostridium difficile strain VPI 10463

<400> 2129
atgtctttaa tatctaaaga agagttaata aaactcgcat atagcattag accaagagaa 60
aatgagtata aaactatact aactaattta gacgaatata ataagttaac tacaaacaat 120
aatgaaaata aatatttgca attaaaaaaa ctaaatgaat caattgatgt ttttatgaat 180
aaatataaaa cttcaagcag aaatagagca ctctctaatc taaaaaaaga tatattaaaa 240
gaagtaattc ttattaaaaa ttccaataca agccctgtag aaaaaaattt acattttgta 300
tggataggtg gagaagtcag tgatattgct cttgaataca taaaacaatg ggctgatatt 360
aatgcagaat ataatattaa actgtggtat gatagtgaag cattcttagt aaatacacta 420
aaaaaggcta tagttgaatc ttctaccact gaagcattac agctactaga ggaagagatt 480
caaaatcctc aatttgataa tatgaaattt tacaaaaaaa ggatggaatt tatatatgat 540
agacaaaaaa ggtttataaa ttattataaa tctcaaatca ataaacctac agtacctaca 600
atagatgata ttataaagtc tcatctagta tctgaatata atagagatga aactgtatta 660
gaatcatata gaacaaattc tttgagaaaa ataaatagta atcatgggat agatatcagg 720
gctaatagtt tgtttacaga acaagagtta ttaaatattt atagtcagga gttgttaaat 780
cgtggaaatt tagctgcagc atctgacata gtaagattat tagccctaaa aaattttggc 840
ggagtatatt tagatgttga tatgcttcca ggtattcact ctgatttatt taaaacaata 900
tctagaccta gctctattgg actagaccgt tgggaaatga taaaattaga ggctattatg 960
aagtataaaa aatatataaa taattataca tcagaaaact ttgataaact tgatcaacaa 1020
ttaaaagata attttaaact cattatagaa agtaaaagtg aaaaatctga gatattttct 1080
aaattagaaa atttaaatgt atctgatctt gaaattaaaa tagctttcgc tttaggcagt 1140
gttataaatc aagccttgat atcaaaacaa ggttcatatc ttactaacct agtaatagaa 1200
caagtaaaaa atagatatca atttttaaac caacacctta acccagccat agagtctgat 1260
aataacttca cagatactac taaaattttt catgattcat tatttaattc agctaccgca 1320
gaaaactcta tgtttttaac aaaaatagca ccatacttac aagtaggttt tatgccagaa 1380
gctcgctcca caataagttt aagtggtcca ggagcttatg cgtcagctta ctatgatttc 1440
ataaatttac aagaaaatac tatagaaaaa actttaaaag catcagattt aatagaattt 1500
aaattcccag aaaataatct atctcaattg acagaacaag aaataaatag tctatggagc 1560
tttgatcaag caagtgcaaa atatcaattt gagaaatatg taagagatta tactggtgga 1620
tctctttctg aagacaatgg ggtagacttt aataaaaata ctgccctcga caaaaactat 1680
ttattaaata ataaaattcc atcaaacaat gtagaagaag ctggaagtaa aaattatgtt 1740
cattatatca tacagttaca aggagatgat ataagttatg aagcaacatg caatttattt 1800
tctaaaaatc ctaaaaatag tattattata caacgaaata tgaatgaaag tgcaaaaagc 1860
tacttttaa gtgatgatgg agaatctatt ttagaattaa ataaatatag gatacctgaa 1920
agattaaaaa ataaggaaaa agtaaaagta acctttattg gacatggtaa agatgaattc 1980
aacacaagcg aatttgctag attaagtgta gattcacttt ccaatgagat aagttcattt 2040
ttagatacca taaaattaga tatatcacct aaaaatgtag aagtaaactt acttggatgt 2100
aatatgttta gttatgattt taatgttgaa gaaacttatc ctgggaagtt gctattaagt 2160
attatggaca aaattacttc cactttacct gatgtaaata aaaattctat tactatagga 2220
gcaaatcaat atgaagtaag aattaatagt gagggaagaa aagaacttct ggctcactca 2280
ggtaaatgga taaataaaga agaagctatt atgagcgatt tatctagtaa agaatacatt 2340
ttttttgatt ctatagataa taagctaaaa gcaaagtcca agaatattcc aggattagca 2400
tcaatatcag aagatataaa aacattatta cttgatgcaa gtgttagtcc tgatacaaaa 2460
tttattttaa ataatcttaa gcttaatatt gaatcttcta ttggggatta catttattat 2520
gaaaaattag agcctgttaa aaatataatt cacaattcta tagatgattt aatagatgag 2580
ttcaatctac ttgaaaatgt atctgatgaa ttatatgaat taaaaaaatt aaataatcta 2640
gatgagaagt atttaatatc ttttgaagat atctcaaaaa ataattcaac ttactctgta 2700
agatttatta acaaaagtaa tggtgagtca gtttatgtag aaacagaaaa agaaattttt 2760
tcaaaatata gcgaacatat tacaaaagaa ataagtacta taaagaatag tataattaca 2820
gatgttaatg gtaatttatt ggataatata cagttagatc atacttctca agttaataca 2880
ttaaacgcag cattctttat tcaatcatta atagattata gtagcaataa agatgtactg 2940
aatgatttaa gtacctcagt taaggttcaa ctttatgctc aactatttag tacaggttta 3000
aatactatat atgactctat ccaattagta aatttaatat caaatgcagt aaatgatact 3060
ataaatgtac tacctacaat aacagagggg atacctattg tatctactat attagacgga 3120
ataaacttag gtgcagcaat taaggaatta ctagacgaac atgacccatt actaaaaaaa 3180
gaattagaag ctaaggtggg tgttttagca ataaatatgt cattatctat agctgcaact 3240
gtagcttcaa ttgttggaat aggtgctgaa gttactattt tcttattacc tatagctggt 3300
atatctgcag gaataccttc attagttaat aatgaattaa tattgcatga taaggcaact 3360

tcagtggtaa actattttaa tcatttgtct gaatctaaaa aatatggccc tcttaaaaca 3420
gaagatgata aaattttagt tcctattgat gatttagtaa tatcagaaat agattttaat 3480
aataattcga taaaactagg aacatgtaat atattagcaa tggaggggag atcaggacac 3540
acagtgactg gtaatataga tcacttttc tcatctccat ctataagttc tcatattcct 3600
tcattatcaa tttattctgc aataggtata gaaacagaaa atctagattt ttcaaaaaaa 3660
ataatgatgt tacctaatgc tccttcaaga gtgttttggt gggaaactgg agcagttcca 3720
ggtttaagat cattggaaaa tgacggaact agattacttg attcaataag agatttatac 3780
ccaggtaaat tttactggag attctatgct tttttcgatt atgcaataac tacattaaaa 3840
ccagtttatg aagacactaa tattaaaatt aaactagata aagatactag aaacttcata 3900
atgccaacta taactactaa cgaaattaga aacaaattat cttattcatt tgatggagca 3960
ggaggaactt actctttatt attatcttca tatccaatat caacgaatat aaatttatct 4020
aaagatgatt tatggatatt taatattgat aatgaagtaa gagaaatatc tatagaaaat 4080
ggtactatta aaaaaggaaa gttaataaaa gatgttttaa gtaaaattga tataaataaa 4140
aataaactta ttataggcaa tcaaacaata gatttttcag gcgatataga taataaagat 4200
agatatatat tcttgacttg tgagttagat gataaaatta gtttaataat agaaataaat 4260
cttgttgcaa aatcttatag tttgttattg tctggggata aaaattattt gatatccaat 4320
ttatctaata ctattgagaa aatcaatact ttaggcctag atagtaaaaa tatagcgtac 4380
aattacactg atgaatctaa taataaatat tttggagcta tatctaaaac aagtcaaaaa 4440
agcataatac attataaaaa agacagtaaa aatatattag aattttataa tgacagtaca 4500
ttagaattta acagtaaaga ttttattgct gaagatataa atgtatttat gaaagatgat 4560
attaatacta taacaggaaa atactatgtt gataataata ctgataaaag tatagatttc 4620
tctatttctt tagttagtaa aaatcaagta aaagtaaatg gattatattt aaatgaatcc 4680
gtatactcat cttaccttga ttttgtgaaa aattcagatg gacaccataa tacttctaat 4740
tttatgaatt tatttttgga caatataagt ttctggaaat tgtttgggtt tgaaaatata 4800
aattttgtaa tcgataaata ctttaccctt gttggtaaaa ctaatcttgg atatgtagaa 4860
tttatttgtg acaataataa aaatatagat atatattttg gtgaatggaa aacatcgtca 4920
tctaaaagca ctatatttag cggaaatggt agaaatgttg tagtagagcc tatatataat 4980
cctgatacgg gtgaagatat atctacttca ctagattttt cctatgaacc tctctatgga 5040
atagatagat atataaataa agtattgata gcacctgatt tatatacaag tttaataaat 5100
attaatacca attattattc aaatgagtac taccctgaga ttatagttct taacccaaat 5160
acattccaca aaaaagtaaa tataaattta gatagttctt cttttgagta taaatggtct 5220
acagaaggaa gtgactttat tttagttaga tacttagaag aaagtaataa aaaaatatta 5280
caaaaaataa gaatcaaagg tatcttatct aatactcaat catttaataa aatgagtata 5340
gattttaaag atattaaaaa actatcatta ggatatataa tgagtaattt taaatcattt 5400
aattctgaaa atgaattaga tagagatcat ttaggattta aaataataga taataaaact 5460
tattactatg atgaagatag taaattagtt aaaggattaa gcaagtaatt gacaataata 5520
agtattattt caatcctgac actgctatca tctcaaaagg ttggcagact gttaatggta 5580
gtagatacta ctttgatact gataccgcta ttgcctttaa tggttataaa actattgatg 5640
gtaaacactt ttattttgat agtgattgtg tagtgaaaat aggtgtgttt agtacctcta 5700
atggatttga atattttgca cctgctaata cttataataa taacatagaa ggtcaggcta 5760
tagtttatca aagtaaattc ttaactttga atggtaaaaa atattacttt gataataact 5820
caaaagcagt taccggattg caaactattg atagtaaaaa atattacttt aatactaaca 5880
ctgctgaagc agctactgga tggcaaacta ttgatggtaa aaaatattac tttaatacta 5940
acactgctga agcagctact ggatggcaaa ctattgatgg taaaaaatat tactttaata 6000
ctaacactgc tatagcttca actggttata caattattaa tggtaaacat ttttatttta 6060
atactgatgg tattatgcag ataggagtgt ttaaaggacc taatggattt gaatattttg 6120
cacctgctaa tacggatgct aacaacatag aaggtcaagc tatactttac caaaatgaat 6180
tcttaacttt gaatggtaaa aaatattact ttggtagtga ctcaaaagca gttactggat 6240
ggagaattat taacaataag aaatattact ttaatcctaa taatgctatt gctgcaattc 6300
atctatgcac tataaataat gacaagtatt actttagtta tgatggaatt cttcaaaatg 6360
gatatattac tattgaaaga aataatttct attttgatgc taataatgaa tctaaaatgg 6420
taacaggagt atttaaagga cctaatggat ttgagtattt tgcacctgct aatactcaca 6480
ataataacat agaaggtcag gctatagttt accagaacaa attcttaact ttgaatggca 6540
aaaaatatta ttttgataat gactcaaaag cagttactgg atggcaaacc attgatggta 6600
aaaaatatta ctttaatctt aacactgctg aagcagctac tggatggcaa actattgatg 6660
gtaaaaaata ttactttaat cttaacactg ctgaagcagc tactggatgg caaactattg 6720
atggtaaaaa atattacttt aatactaaca ctttcatagc ctcaactggt tatacaagta 6780
ttaatggtaa acatttttat tttaatactg atggtattat gcagatagga gtgtttaaag 6840
gacctaatgg atttgaatac tttgcacctg ctaatacgga tgctaacaac atagaaggtc 6900
aagctatact ttaccaaaat aaattcttaa ctttgaatgg taaaaaatat tactttggta 6960
gtgactcaaa agcagttacc ggactgcgaa ctattgatgg taaaaaatat tactttaata 7020
ctaacactgc tgttgcagtt actggatggc aaactattaa tggtaaaaaa tactacttta 7080
atactaacac ttctatagct tcaactggtt atacaattat tagtggtaaa catttttatt 7140
ttaatactga tggtattatg cagataggag tgtttaaagg acctgatgga tttgaatact 7200
ttgcacctgc taatacagat gctaacaata tagaaggtca agctatacgt tatcaaaata 7260
gattcctata tttacatgac aatatatatt attttggtaa taattcaaaa gcggctactg 7320

gttgggtaac tattgatggt aatagatatt acttcgagcc taatacagct atgggtgcga 7380
atggttataa aactattgat aataaaaatt tttactttag aaatggttta cctcagatag 7440
gagtgtttaa agggtctaat ggatttgaat actttgcacc tgctaatacg gatgctaaca 7500
atatagaagg tcaagctata cgttatcaaa atagattcct acatttactt ggaaaaatat 7560
attactttgg taataattca aaagcagtta ctggatggca aactattaat ggtaaagtat 7620
attactttat gcctgatact gctatggctg cagctggtgg acttttcgag attgatggtg 7680
ttatatattt ctttggtgtt gatggagtaa aagcccctgg gatatatggc taa 7733

<210> 2130
<211> 7101
<212> DNA
<213> Clostridium difficile strain VPI 10463

<400> 2130
atgagtttag ttaatagaaa acagttagaa aaaatggcaa atgtaagatt tcgtactcaa 60
gaagatgaat atgttgcaat attggatgct ttagaagaat atcataatat gtcagagaat 120
actgtagtcg aaaaatattt aaaattaaaa gatataaata gtttaacaga tatttatata 180
gatacatata aaaaatctgg tagaaataaa gccttaaaaa aatttaagga atatctagtt 240
acagaagtat tagagctaaa gaataataat ttaactccag ttgagaaaaa tttacatttt 300
gtttggattg gaggtcaaat aaatgacact gctattaatt atataaatca atggaaagat 360
gtaaatagtg attataatgt taatgttttt tatgatagta atgcattttt gataaacaca 420
ttgaaaaaaa ctgtagtaga atcagcaata aatgatacac ttgaatcatt tagagaaaac 480
ttaaatgacc ctagatttga ctataataaa ttcttcagaa aacgtatgga aataatttat 540
gataaacaga aaaatttcat aaactactat aaagctcaaa gagaagaaaa tcctgaactt 600
ataattgatg atattgtaaa gacatatctt tcaaatgagt attcaaagga gatagatgaa 660
cttaatacct atattgaaga atccttaaat aaaattacac agaatagtgg aaatgatgtt 720
agaaactttg aagaatttaa aaatggagag tcattcaact tatatgaaca agagttggta 780
gaaaggtgga atttagctgc tgcttctgac atattaagaa tatctgcatt aaaagaaatt 840
ggtggtatgt atttagatgt tgatatgtta ccaggaatac aaccagactt atttgagtct 900
atagagaaac ctagttcagt aacagtggat ttttgggaaa tgacaaagtt agaagctata 960
atgaaataca aagaatatat accagaatat acctcagaac attttgacat gttagacgaa 1020
gaagttcaaa gtagttttga atctgttcta gcttctaagt cagataaatc agaaatattc 1080
tcatcacttg gtgatatgga ggcatcacca ctagaagtta aaattgcatt taatagtaag 1140
ggtattataa atcaagggct aatttctgtg aaagactcat attgtagcaa tttaatagta 1200
aaacaaatcg agaatagata taaaatattg aataatagtt taaatccagc tattagcgag 1260
gataatgatt ttaatactac aacgaatacc tttattgata gtataatggc tgaagctaat 1320
gcagataatg gtagatttat gatggaacta ggaaagtatt taagagttgg tttcttccca 1380
gatgttaaaa ctactattaa cttaagtggc cctgaagcat atgcggcagc ttatcaagat 1440
ttattaatgt ttaaagaagg cagtatgaat atccatttga tagaagctga tttaagaaac 1500
tttgaaatct ctaaaactaa tatttctcaa tcaactgaac aagaaatggc tagcttatgg 1560
tcatttgacg atgcaagagc taaagctcaa tttgaagaat ataaaaggaa ttattttgaa 1620
ggttctcttg gtgaagatga taatcttgat ttttctcaaa atatagtagt tgacaaggag 1680
tatcttttag aaaaaatatc ttcattagca agaagttcag agagaggata tatacactat 1740
attgttcagt tacaaggaga taaaattagt tatgaagcag catgtaactt atttgcaaag 1800
actccttatg atagtgtact gtttcagaaa aatatagaag attcagaaat tgcatattat 1860
tataatcctg gagatggtga aatacaagaa atagacaagt ataaaattcc aagtataatt 1920
tctgatagac ctaagattaa attaacattt attggtcatg gtaaagatga atttaatact 1980
gatatatttg caggttttga tgtagattca ttatccacag aaatagaagc agcaatagat 2040
ttagctaaag aggatatttc tcctaagtca atagaaataa atttattagg atgtaatatg 2100
tttagctact ctatcaacgt agaggagact tatcctggaa aattattact taaagttaaa 2160
gataaaatat cagaattaat gccatctata agtcaagact ctattatagt aagtgcaaat 2220
caatatgaag ttagaataaa tagtgaagga agaagagaat tattggatca ttctggtgaa 2280
tggataaata aagaagaaag tattataaag gatatttcat caaaagaata tatatcattt 2340
aatcctaaag aaaataaaat tacagtaaaa tctaaaaatt tacctgagct atctacatta 2400
ttacaagaaa ttagaaataa ttctaattca agtgatattg aactagaaga aaaagtaatg 2460
ttaacagaat gtgagataaa tgttatttca aatatagata cgcaaattgt tgaggaaagg 2520
attgaagaag ctaagaattt aacttctgac tctattaatt atataaaaga tgaatttaaa 2580
ctaatagaat ctatttctga tgcactatgt gacttaaaac aacagaatga attagaagat 2640
tctcatttta tatcttttga ggacatatca gagactgatg agggatttag tataagattt 2700
attaataaag aaactggaga atctatattt gtagaaactg aaaaaacaat attctctgaa 2760
tatgctaatc atataactga agagatttct aagataaaag gtactatatt tgatactgta 2820
aatggtaagt tagtaaaaaa agtaaattta gatactacac acgaagtaaa tactttaaat 2880
gctgcatttt ttatacaatc attaatagaa tataatagtt ctaaagaatc tcttagtaat 2940
ttaagtgtag caatgaaagt ccaagtttac gctcaattat ttagtactgg tttaaatact 3000
attacagatg cagccaaagt tgttgaatta gtatcaactg cattagatga aactatagac 3060

ttacttccta cattatctga aggattacct ataattgcaa ctattataga tggtgtaagt 3120
ttaggtgcag caatcaaaga gctaagtgaa acgagtgacc cattattaag acaagaaata 3180
gaagctaaga taggtataat ggcagtaaat ttaacaacag ctacaactgc aatcattact 3240
tcatctttgg ggatagctag tggatttagt atacttttag ttcctttagc aggaatttca 3300
gcaggtatac caagcttagt aaacaatgaa cttgtacttc gagataaggc aacaaaggtt 3360
gtagattatt ttaaacatgt ttcattagtt gaaactgaag gagtatttac tttattagat 3420
gataaaataa tgatgccaca agatgattta gtgatatcag aaatagattt taataataat 3480
tcaatagttt taggtaaatg tgaaatctgg agaatggaag gtggttcagg tcatactgta 3540
actgatgata tagatcactt cttttcagca ccatcaataa catatagaga gccacactta 3600
tctatatatg acgtattgga agtacaaaaa gaagaacttg atttgtcaaa agatttaatg 3660
gtattaccta atgctccaaa tagagtattt gcttgggaaa caggatggac accaggttta 3720
agaagcttag aaaatgatgg cacaaaactg ttagaccgta taagagataa ctatgaaggt 3780
gagttttatt ggagatattt tgcttttata gctgatgctt taataacaac attaaaacca 3840
agatatgaag atactaatat aagaataaat ttagatagta atactagaag ttttatagtt 3900
ccaataataa ctacagaata tataagagaa aaattatcat attctttcta tggttcagga 3960
ggaacttatg cattgtctct ttctcaatat aatatgggta taaatataga attaagtgaa 4020
agtgatgttt ggattataga tgttgataat gttgtgagag atgtaactat agaatctgat 4080
aaaattaaaa aaggtgattt aatagaaggt attttatcta cactaagtat tgaagagaat 4140
aaaattatct taaatagcca tgagattaat ttttctggtg aggtaaatgg aagtaatgga 4200
tttgtttctt taacattttc aattttagaa ggaataaatg caattataga agttgattta 4260
ttatctaaat catataaatt acttatttct ggcgaattaa aaatattgat gttaaattca 4320
aatcatattc aacagaaaat agattatata ggattcaata gcgaattaca gaaaaatata 4380
ccatatagct ttgtagatag tgaaggaaaa gagaatggtt ttattaatgg ttcaacaaaa 4440
gaaggtttat ttgtatctga attacctgat gtagttctta taagtaaggt ttatatggat 4500
gatagtaagc cttcatttgg atattatagt aataatttga aagatgtcaa agttataact 4560
aaagataatg ttaatatatt aacaggttat tatcttaagg atgatataaa aatctctctt 4620
tctttgactc tacaagatga aaaaactata aagttaaata gtgtgcattt agatgaaagt 4680
ggagtagctg agattttgaa gttcatgaat agaaaaggta atacaaatac ttcagattct 4740
ttaatgagct ttttagaaag tatgaatata aaaagtattt tcgttaattt cttacaatct 4800
aatattaagt ttatattaga tgctaatttt ataataagtg gtactacttc tattggccaa 4860
tttgagttta tttgtgatga aaatgataat atacaaccat atttcattaa gtttaataca 4920
ctagaaacta attatacttt atatgtagga aatagacaaa atatgatagt ggaaccaaat 4980
tatgatttag atgattctgg agatatatct tcaactgtta tcaatttctc tcaaaagtat 5040
ctttatggaa tagacagttg tgttaataaa gttgtaattt caccaaatat ttatacagat 5100
gaaataaata taacgcctgt atatgaaaca aataatactt atccagaagt tattgtatta 5160
gatgcaaatt atataaatga aaaaataaat gttaatatca atgatctatc tatacgatat 5220
gtatggagta atgatggtaa tgattttatt cttatgtcaa ctagtgaaga aaataaggtg 5280
tcacaagtta aaataagatt cgttaatgtt tttaaagata agactttggc aaataagcta 5340
tcttttaact ttagtgataa acaagatgta cctgtaagtg aaataatctt atcatttaca 5400
ccttcatatt atgaggatgg attgattggc tatgatttgg gtctagtttc tttatataat 5460
gagaaatttt atattaataa ctttggaatg atggtatctg gattaatata tattaatgat 5520
tcattatatt attttaaacc accagtaaat aatttgataa ctggatttgt gactgtaggc 5580
gatgataaat actactttaa tccaattaat ggtggagctg cttcaattgg agagacaata 5640
attgatgaca aaaattatta tttcaaccaa agtggagtgt tacaaacagg tgtatttagt 5700
acagaagatg gatttaaata ttttgcccca gctaatacac ttgatgaaaa cctagaagga 5760
gaagcaattg attttactgg aaaattaatt attgacgaaa atatttatta ttttgatgat 5820
aattatagag gagctgtaga atggaaagaa ttagatggtg aaatgcacta ttttagccca 5880
gaaacaggta aagcttttaa aggtctaaat caaataggtg attataaata ctatttcaat 5940
tctgatggag ttatgcaaaa aggatttgtt agtataaatg ataataaaca ctattttgat 6000
gattctggtg ttatgaaagt aggttacact gaaatagatg gcaagcattt ctactttgct 6060
gaaaacggag aaatgcaaat aggagtattt aatacagaag atggatttaa atattttgct 6120
catcataatg aagatttagg aaatgaagaa ggtgaagaaa tctcatattc tggtatatta 6180
aatttcaata ataaaattta ctattttgat gattcattta cagctgtagt tggatggaaa 6240
gatttagagg atggttcaaa gtattatttt gatgaagata cagcagaagc atatataggt 6300
ttgtcattaa taaatgatgg tcaatattat tttaatgatg atggaattat gcaagttgga 6360
tttgtcacta taaatgataa agtcttctac ttctctgact ctggaattat agaatctgga 6420
gtacaaaaca tagatgacaa ttatttctat atagatgata atggtatagt tcaaattggt 6480
gtatttgata cttcagatgg atataaatat tttgcacctg ctaatactgt aaatgataat 6540
atttacggac aagcagttga atatagtggt ttagttagag ttggggaaga tgtatattat 6600
tttggagaaa catatacaat tgagactgga tggatatatg atatggaaaa tgaaagtgat 6660
aaatattatt tcaatccaga aactaaaaaa gcatgcaaag gtattaattt aattgatgat 6720
ataaaatatt attttgatga gaagggcata atgagaacgg gtcttatatc atttgaaaat 6780
aataattatt actttaatga gaatggtgaa atgcaatttg gttatataaa tatagaagat 6840
aagatgttct attttggtga agatggtgtc atgcagattg gagtatttaa tacaccagat 6900
ggatttaaat actttgcaca tcaaaatact ttggatgaga attttgaggg agaatcaata 6960
aactatactg gttggttaga tttagatgaa aagagatatt attttacaga tgaatatatt 7020

gcagcaactg gttcagttat tattgatggt gaggagtatt attttgatcc tgatacagct 7080
caattagtga ttagtgaata g 7101

<210> 2131
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2131
aagcmattgt tgtaaatttt gaaag 25

<210> 2132
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2132
tcatatccat agcaatagtt cta 23

<210> 2133
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2133
ccacgcacaw aaacttgttt tagaagtagc agcwcagcgt gg 42

<210> 2134
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2134
cgcgtgaagc ttctgtg 17

<210> 2135
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2135

tctcgccgtt attcagtttc 20

<210> 2136
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2136
ccaacgcgtc ctcaatcatt tctaacttct atggccggcg ttgg 44

<210> 2137
<211> 889
<212> DNA
<213> Pseudomonas putida

<400> 2137
atgatcaccg gtgctgccca gatggacggc gcgatcctgg tttgctcggc cgccgatggt 60
ccgatgccrc aaacccgtga gcacatcctg ctgtcccgtc aggtaggcgt tccgtacatc 120
gtggtcttcc tgaacaaggc cgacctggta gacgacgctg agctgctgga actggtcgag 180
atggaagttc gcgacctgct gtccacctac gacttcccag gcgacgacac tccgatcatc 240
atcggttccg ctcgtatggc cctggaaggc aaagacgaca acgaaatggg cactaccgct 300
gtcaagaagc tggtagaaac tctggatgcc tacatccctg agccagttcg tgccatcgac 360
cagccgttcc tgatgccgat cgaagacgtg ttctcgatct cgggtcgtgg taccgttgtt 420
accggtcgta tcgagcgtgg catcgttcgc gttcaggatc cgctggaaat cgttggtctg 480
cgtgacacca ccaccaccac ctgcaccggt gttgagatgt tccgcaagct gctggacgaa 540
ggtcgtgctg gcgagaactg cggcgttctg ctgcgtggta ccaagcgtga cgacgttgag 600
cgtggccagg ttctggtcaa gccaggttcg gtcaagccgc acaccaagtt caccgcagaa 660
gtctacgtcc tgtcgaagga agaaggcggc cgtcacactc cgttcttcaa aggctaccgt 720
ccacagttct acttccgtac cactgacgtg accggtaact gcgaactgcc ggaaggcgtt 780
gaaatggtaa tgccaggtga caacattcag atgactgtta ccctgatcaa gaccatcgca 840
atggaagacg gtctgcgctt cgctatccgt gaaggcggtc gtaccgtcg 889

<210> 2138
<211> 900
<212> DNA
<213> Pseudomonas aeruginosa strain PAO-1

<400> 2138
aacatgatca ccggtgctgc ccagatggac ggcgcgatcc tggtttgctc ggctgccgac 60
ggccccatgc cgcagacccg cgagcacatc ctgctgtccc gccaggtagg cgttccctac 120
atcgtcgtgt tcctgaacaa ggccgacatg gtcgacgacg ccgagctgct ggaactggtc 180
gagatggaag ttcgcgatct gctgaacacc tacgacttcc cgggcgacga cactccgatc 240
atcatcggtt ccgcgctgat ggcgctggaa ggcaaggatg acaacggcat cggcgtaagc 300
gccgtgcaga agctggtaga gaccctggac tcctacattc cggagccggt tcgtgccatc 360
gaccagccgt tcctgatgcc gatcgaagac gtgttctcga tctccggccg cggtaccgtg 420
gtaaccggtc gtgtagagcg cggcatcatc aaggtccagg aagaagtgga aatcgtcggc 480
atcaaggcga ccaccaagac tacctgcacc ggcgttgaaa tgttccgcaa gctgctcgac 540
gaaggtcgtg ctggtgagaa cgttggtatc ctgctgcgtg gcaccaagcg tgaagacgta 600
gagcgtggcc aggttctggc caagccgggc accatcaagc cgcacaccaa gttcgagtgc 660
gaagtgtacg tgctgtccaa ggaagaaggt ggtcgtcaca ccccgttctt caagggctac 720
cgtccgcagt tctacttccg taccaccgac gtgaccggta actgcgaact gccggaaggc 780
gtagagatgg taatgccggg cgacaacatc aagatggttg tcaccctgat cgctccgatc 840
gccatggaag atggcctgcg cttcgcgatc cgcgaaggcg gccgtaccgt tggcgccggc 900

<210> 2139
<211> 1398
<212> DNA
<213> Campylobacter jejuni NCTC 11168

<400> 2139
atgcaaggat ttatttcaca ggtattaggt ccggttgttg atgtagattt taacgactat 60
ttgcctcaaa ttaatgaagc aattgttgta aattttgaaa gcgaaggaaa aaaacataaa 120
cttgttttag aagtagcagc tcatttagga gataatagag ttagaactat tgctatggat 180
atgacagatg gtttggtaag gggcttaaaa gctgaggctt taggtgctcc cattagtgtt 240
cctgttggtg agaaagtttt aggaagaatt ttcaatgtta ctggagattt gatcgatgaa 300
ggtgaagaaa tttctttcga taaaaaatgg gcaattcata gagatccacc agcttttgaa 360
gatcaaagca caaaaagtga gatttttgaa acagggatta aagttgtaga tttacttgct 420
ccttatgcaa aaggtggtaa agtaggtctt tttggtggtg caggtgttgg taaaactgtt 480
attattatgg agcttattca caatgttgca tttaagcata gcggctattc tgtatttgca 540
ggtgtgggtg agagaactcg tgaaggaaat gacctttata atgaaatgaa agaaagtaat 600
gttttagaca aagttgctct atgttatgga caaatgaatg aaccaccagg ggcaagaaat 660
cgtattgctt taacaggttt aacaatggct gagtatttta gagatgaaat gggtcttgat 720
gtgcttatgt ttattgataa tatctttaga ttttcacaat caggttctga aatgtcagca 780
cttttaggaa gaattccatc agctgtgggt tatcaaccaa ccttagcaag tgaaatgggt 840
aaattccaag aaagaattac ttcaactaaa aaaggctcaa tcacttcagt tcaagctgtt 900
tacgttccag ctgatgactt aacagaccca gctccagcaa ctgtttttgc tcacttagat 960
gctacaacgg ttttaaatag agctattgct gaaaagggta tttatcctgc agttgaccca 1020
cttgactcaa cttcaagaat gcttgaccca aatatcattg gagaagaaca ttataaagtt 1080
gctcgtggtg ttcaatcagt gcttcaaaaa tacaaagatt tacaagatat catcgccatt 1140
ttaggtatgg atgagcttag cgaagaggat aaacttgtag ttgaaagagc aagaaagatt 1200
gaaaaattct tatcacaacc atttttcgtt gcagaagttt tcacaggtag cccaggaaaa 1260
tatataagcc ttgaagatac aatagcagga tttaagggaa ttttagaagg taaatatgat 1320
catttaccag aaaatgcttt ctatatggtt ggaaatatag atgaagctat tgcaaaagcg 1380
gataaattaa aaggttaa 1398

<210> 2140
<211> 2157
<212> DNA
<213> Streptococcus pneumoniae strain 670

<400> 2140
atgaacaaac caacgattct gcgcctaatc aagtatctga gcattagctt cttaagcttg 60
gttatcgcag ccattgtctt aggcggagga gtttttttct actacgttag caaggctcct 120
agcctatccg agagtaaact agttgcaaca acttctagta aaatctacga caataaaaat 180
caactcattg ctgacttggg ttctgaacgc cgcgtcaatg cccaagctaa tgatattccc 240
acagatttgg ttaaggcaat cgtttctatc gaagaccatc gcttcttcga ccacaggggg 300
attgattcca tccgtatcct gggagctttc ttgcgcaatc tgcaaagtaa ttccctccaa 360
ggtggatcaa ctctcaccca acagttgatt aagttgactt acttttcaac ctcgacttcc 420
gaccagacta tttctcgtaa ggctcaggaa gcttggttag cgattcagtt agaacaaaaa 480
gcaaccaaac aggaaatctt gacctactat ataaataagg tctacatgtc taatggcaac 540
tatggaatgc agacagcagc tcaaaactac tatggtaaag acctcaataa tttaagttta 600
cctcagttag ccttgctggc tggaatgcct caggcaccaa accaatatga cccctattca 660
catccagaag cagcccaaga ccgccgaaac ttggtcttat ctgaaatgaa aaatcaaggt 720
tacatctctg ctgaacagta tgagaaagca gtcaatacac caattactga tggactacaa 780
agtctcaaat cagcaagtaa ttaccctgct tacatggata attacctcaa ggaggtcatc 840
aatcaagtag aacaagaaac tggctataac cttctaacta ctgggatgga tgtttacaca 900
aatgtagacc aagaagctca aaaacatctg tgggatatct acaactccga tcaatacgtc 960
tcttaccctg acgatgattt gcaagtcgca tctacggtcg tagatgtttc aaatggtaaa 1020
gtcatcgccc aacttggagc tcgtcaccaa gcaagtaacg tttcatttgg taccaaccaa 1080
gctgtggaaa ccaatcgtga ctgggggttct gctatgaaac caatcaccga ttatgcacct 1140
gccatagaat acggtgttta tgattccact gcaactatgg ttaatgatat tccttataac 1200
tatccgggaa caagcacacc tgtctacaac tgggatagag catatttcgg taatattact 1260
ctgcaatatg ctcttcaaca atcacgaaat gtcacagccg ttgagacttt gaataaggtc 1320
ggtctagata gagctaaaac cttccttaat ggtcttggta tcgactatcc aagcatgcat 1380
tatgcaaacg ccatttcaag taatacaaca gaatctaata aacaatacgg agcaagtagt 1440
gaaaaaatgg ctgctgctta tgctgccttt gccaacggtg gaatttacca caaacccatg 1500
tatatcaata aggtcgtctt cagtgacggt agtaaaaaag aattttcaga tgtaggtaca 1560
cgagctatga aagaaacaac tgcttacatg atgaccgaaa tgatgaaaac tgtcttggca 1620
tacggaactg gtcgtggagc ctatctccca tggttagcgc aagctggtaa gacaggtact 1680
tctaactaca cagatgatga aattgaaaaa cacatcaaga acactggcta tgtagctcca 1740
gatgaaatgt ttgttggtta tactcgtaag tattctatgg ctgtatggac aggttattcg 1800
aatcgtttaa ctcctatcgt tggagatggt ttcctagttg cagctaaagt ttatcgctca 1860
atgataacgt atctatcaga agatactcat ccagaagact ggacgatgcc agacggactt 1920
ttcagaaacg gggaatttgt attcaaaaat ggagctcgtt ctacgtggag ctcacctgct 1980

ccacaacaac ccccatcaac tgaaagttca agctcatcat cagatagttc aacttcacag 2040
tctagctcaa ccactccaag cacaaataat agtacgacta ccgatcctaa caataatacg 2100
caacaatcaa atacaacccc tgatcaacaa aatcagaatc ctcaaccagc acaacca 2157

<210> 2141
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2141
caccagtcac agaaaagc 18

<210> 2142
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2142
gccttaattt cggatagtgc 20

<210> 2143
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2143
gagaaagagc ccaattatct aatgt 25

<210> 2144
<211> 3075
<212> DNA
<213> Staphylococcus aureus strain J2870

<400> 2144
ttgacaaaga aatatttaaa cacccagaat gaaatatcag cattttggaa tactcaaaag 60
atatttaaaa aatcaattga caatagaaaa ggacaggaaa gttttgtttt ttatgacggc 120
cccccaactg caaatggcct tcctcatgct ggccatgttc ttggaagagt aatcaaggat 180
ttagttgcaa gattaaaaac tatgcaaggt ttttatgtag aaagaaaagc aggatgggat 240
acccatggct taccagttga attagaggtt gaaaaaaaaa ttggaattaa aggaaaacaa 300
gacattgaaa agtatggaat agaaaatttt ataaatgaat gtaaaaaaag tgtatttaat 360
tatgaaaaag aatggcggga ttttttctaaa gatttaggat actgggttga catggactcc 420
ccctatataa ctcttgagaa taattatatt gaaagtgtat ggaatatatt atctacattc 480
cataaaaaag gactattata taagggacat aaggtgactc cttattgtac acatgatcaa 540
accgctttaa gttctcatga agtagcgcaa ggctataaaa acgttaaaga tttatcagct 600
gttgttaaat ttcaacttac aaatagtaaa gatacttatt tcttaagttg gactaccact 660
ccctggactt tgcctgcaaa tgtagcatta gctataaata aagatcttaa ttattcaaaa 720
attcgggtag aaaatgagta ttatatctta gctacagatc taattaattc tataataact 780
gaaaaatacg aaattattga taccttttca ggaagtaatt taattaattt aaaatacatt 840
cctccttttg aaagcgacgg tttagttaat gcatattacg ttgttgatgg agaatttgtt 900
actaactcag aaggaactgg tattgttcat atagcaccag ctcatgggga agatgactac 960

caattggttt tagagcgtga tttggatttc ttaaatgtta taacaagaga aggagtatat 1020
aatgataggt tccctgaatt agttggtaat aaagctaaaa atagtgatat agaaatcata 1080
aaattattat ccaaaaaaca acttttatat aaaaaacaaa aatatgagca taattatcct 1140
cattgttgga gatgtggtaa tcctttgata tattatgcga tggaaggttg gtttattaaa 1200
acaactaatt ttaagaatga aattattaac aataataata atatagagtg gtttccttct 1260
catattaagg aagggagaat gggaaatttc ttagaaaata tggttgattg gaacattggt 1320
agaaatagat attggggaac accattaaat gtatggattt gcaatgattg taatcacgaa 1380
tacgcaccaa gtagtattaa ggatttacaa aataattcca tcaataaaat tgatgaagat 1440
attgagttgc atagacctta tgttgataat atcactctta gttgccctaa gtgtaatggg 1500
aaaatgtctc gagtagaaga agtaatcgat gtttggtttg atagcggctc tatgccgttt 1560
gctcagcatc attatccttt tgataaccag aaaattttta atcaacactt tccagctgat 1620
tttattgcag aaggagttga tcaaacgaga ggctggtttt acagtttact agtaatttct 1680
actattctaa aaggaaaatc ttcttataaa cgtgctttat ctttaggaca tattctagac 1740
agtaatggta aaaaaatgtc taaaagtaaa ggaaacgtta ttaatccaac tgaattaatt 1800
aataagtacg gagccgattc tttaagatgg gccttaattt cggatagtgc tccatggaat 1860
aacaaaagat tctcagaaaa tatagtagct cagaccaaat cgaaatttat agatacgctt 1920
gataatattt ataaatttta taatatgtat aataaaatag atcactataa tcctaataat 1980
gaaattacaa aaagtagaaa tacattagat aattgggctc tttctcgctt aaacacctta 2040
ataaaagaaa gtaatattta tgtaaataat tacgatttca cttccgcagc cagattaatt 2100
aacgaatata ccaatacaat aagtaattgg tatatcggag attcgagagg acgattttgg 2160
gaacaaggaa tttctaacga taaaaaagat gcgtacaata cgctttatga aattttaaca 2220
actttatcaa gactagtggc tccatttgtt ccatttatat ctgaaaaaat ccattataat 2280
ttgactggaa aaagtgtgca tttacaagat tatccacaat ataaagaaag ttttattaat 2340
caagcattgg aagatgaaat gcataccgtt ataaaaattg tagaattatc tagacaggct 2400
cgcaaaaatg cagatttaaa aattaagcaa cctttatcga aaatggtgat taaacctaat 2460
agtcaattaa acttaagttt tttacctaat tactattcaa taataaaaga cgaattaaat 2520
ataaaaaaca ttgaattaac tgataatatt aatgactata ttacctatga gcttaaattg 2580
aatttttctt ctgtgggacc aaaactaggg aacaaaacga aaaatattca aacattgata 2640
gactccctat cagagtatga taaaaaaagt ttaattgagt ctaataactt caaaagttta 2700
tcttctgatg ctgagttaac taaggatgat tttataatta aaaccttacc taaggatagt 2760
tatcaactca gtgaagataa tgactgcgtt atattattag ataaaaattt atctcctgaa 2820
ttaattcgcg aaggacatgc tagagagctc attagattaa ttcaacaatt aagaaaaaag 2880
aaaaatttac caataaatca acgtattgat atttatatcg gtgtaactgg ggaattatta 2940
gaatcaataa aaaccaataa aaatatgttt aaagaaaatt tcgtgattaa aaatatacac 3000
ttaaatgtta tagatgaata tgaaaatact attcatttta ataataaaga aataaaaatt 3060
tccttattat attaa 3075

<210> 2145
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2145
gcaagatgtg gcgtgttacg gt 22

<210> 2146
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2146
ggggcgaaga agttgtccat att 23

<210> 2147
<211> 660

<212> DNA
<213> Escherichia coli

<400> 2147
atggagaaaa aaatcactgg atataccacc gttgatatat cccaatggca tcgtaaagaa 60
cattttgagg catttcagtc agttgctcaa tgtacctata accagaccgt tcagctggat 120
attacggcct ttttaaagac cgtaaagaaa aataagcaca agttttatcc ggcctttatt 180
cacattcttg cccgcctgat gaatgctcat ccggaattcc gtatggcaat gaaagacggt 240
gagctggtga tatgggatag tgttcaccct tgttacaccg ttttccatga gcaaactgaa 300
acgttttcat cgctctggag tgaataccac gacgatttcc ggcagtttct acacatatat 360
tcgcaagatg tggcgtgtta cggtgaaaac ctggcctatt tccctaaagg gtttattgag 420
aatatgtttt tcgtctcagc caatccctgg gtgagtttca ccagttttga tttaaacgtg 480
gccaatatgg acaacttctt cgcccccgtt ttcaccatgg gcaaatatta tacgcaaggc 540
gacaaggtgc tgatgccgct ggcgattcag gttcatcatg ccgtctgtga tggcttccat 600
gtcggcagaa tgcttaatga attacaacag tactgcgatg agtggcaggg cggggcgtaa 660

<210> 2148
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2148
cagattaaat gcggattcag cc 22

<210> 2149
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2149
atcaggtaaa tcatcagcgg ata 23

<210> 2150
<211> 642
<212> DNA
<213> Escherichia coli strain K12

<400> 2150
atgaatttta cccggattga cctgaatacc tggaatcgca gggaacactt tgccctttat 60
cgtcagcaga ttaaatgcgg attcagcctg accaccaaac tcgatattac cgctttgcgt 120
accgcactgg cggagacagg ttataagttt tatccgctga tgatttacct gatctcccgg 180
gctgttaatc agtttccgga gttccggatg gcactgaaag acaatgaact tatttactgg 240
gaccagtcag acccggtctt tactgtcttt cataaagaaa ccgaaacatt ctctgcactg 300
tcctgccgtt attttccgga tctcagtgag tttatggcag gttataatgc ggtaacggca 360
gaatatcagc atgataccag attgtttccg cagggaaatt taccggagaa tcacctgaat 420
atatcatcat taccgtgggt gagttttgac ggatttaacc tgaacatcac cggaaatgat 480
gattattttg ccccggtttt tacgatggca aagtttcagc aggaaggtga ccgcgtatta 540
ttacctgttt ctgtacaggt tcatcatgca gtatgtgatg gctttcatgc agcacggttt 600
attaatacac ttcagctgat gtgtgataac atactgaaat aa 642

<210> 2151
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2151
atatttcagc attaccttgg gtt 23

<210> 2152
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2152
tacacaactc ttgtagccga tta 23

<210> 2153
<211> 642
<212> DNA
<213> Shigella flexneri

<400> 2153
atgaactata caaaatttga tgtaaaaaat tgggttcgcc gtgagcattt tgagttttat 60
cggcatcgtt taccatgtgg ttttagctta acaagcaaaa ttgatatcac gacgttaaaa 120
aagtcattgg atgattcagc gtataagttt tatccggtaa tgatctatct gattgctcag 180
gccgtgaatc aatttgatga gttgagaatg gcgataaaag atgatgaatt gatcgtatgg 240
gattcagtcg acccacaatt caccgtattc catcaagaaa cagagacatt ttcagcactg 300
agttgcccat actcatccga tattgatcaa tttatggtga attatttatc ggtaatggaa 360
cgttataaaa gtgataccaa gttatttcct caaggggtaa caccagaaaa tcatttaaat 420
atttcagcat taccttgggt taattttgat agctttaatt taaatgttgc taattttacc 480
gattattttg cacccattat aacaatggca aaatatcagc aagaagggga tagactgtta 540
ttgccgctct cagtacaggt tcatcatgca gtttgtgatg gcttccatgt tgcacgcttt 600
attaatcggc tacaagagtt gtgtaacagt aaattaaaat aa 642

<210> 2154
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2154
cgccattcag agtttaggac 20

<210> 2155
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2155
ttccataccg ttgcgtatca ctt 23

<210> 2156
<211> 624
<212> DNA
<213> Clostridium perfringens strain CP590

<400> 2156
atggtatttg aaaaaattga taaaaatagt tggaacagaa aagagtattt tgaccactac 60
tttgcaagtg taccttgtac atacagcatg accgttaaag tggatatcac acaaataaag 120
gaaaagggaa tgaaactata tcctgcaatg ctttattata ttgcaatgat tgtaaaccgc 180
cattcagagt ttaggacggc aatcaatcaa gatggtgaat tggggatata tgatgagatg 240
ataccaagct atacaatatt tcacaatgat actgaaacat tttccagcct ttggactgag 300
tgtaagtctg actttaaatc atttttagca gattatgaaa gtgatacgca acggtatgga 360
aacaatcata gaatggaagg aaagccaaat gctccggaaa acatttttaa tgtatctatg 420
ataccgtggt caaccttcga tggctttaat ctgaatttgc agaaaggata tgattatttg 480
attcctattt ttactatggg gaaatattat aaagaagata acaaaattat acttcctttg 540
gcaattcaag ttcatcacgc agtatgtgac ggatttcaca tttgccgttt tgtaaacgaa 600
ttgcaggaat tgataaatag ttaa 624

<210> 2157
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2157
ccacagaaat tgatattagt gttttat 27

<210> 2158
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2158
tcgctattgt aaccagttct a 21

<210> 2159
<211> 651
<212> DNA
<213> Staphylococcus aureus

<400> 2159
atgaacttta ataaaattga tttagacaat tggaagagaa aagagatatt taatcattat 60
ttgaaccaac aaacgacttt tagtataacc acagaaattg atattagtgt tttataccga 120
aacataaaac aagaaggata taaattttac cctgcattta ttttcttagt gacaagggtg 180
ataaactcaa atacagcttt tagaactggt tacaatagcg acggagagtt aggttattgg 240
gataagttag agccacttta tacaattttt gatggtgtat ctaaaacatt ctctggtatt 300
tggactcctg taaagaatga cttcaaagag ttttatgatt tatacctttc tgatgtagag 360
aaatataatg gttcggggaa attgtttccc aaaacaccta tacctgaaaa tgctttttct 420
ctttctatta ttccatggac ttcatttact gggtttaact taaatatcaa taataatagt 480
aattaccttc tacccattat tacagcagga aaattcatta ataaaggtaa ttcaatatat 540
ttaccgctat ctttacaggt acatcattct gtttgtgatg gttatcatgc aggattgttt 600
atgaactcta ttcaggaatt gtcagatagg cctaatgact ggcttttata a 651

<210> 2160
<211> 23

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2160
ttttgaacac tattttaacc agc 23

<210> 2161
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2161
gatttaactt atcccaataa cct 23

<210> 2162
<211> 648
<212> DNA
<213> Staphylococcus aureus

<400> 2162
atgactttta atattatcaa attagaaaat tgggatagaa aagaatattt tgaacactat 60
tttaaccagc aaactacgta tagcattact aaagaaattg atattacttt gtttaaagat 120
atgataaaaa agaaaggata tgaaatttat ccttctttga tttatgcaat tatggaagtt 180
gtaaataaaa ataaagtgtt tagaacagga attaatagtg agaataaatt aggttattgg 240
gataagttaa atcctttgta tacagttttt aataagcaaa ctgaaaaatt tactaacatt 300
tggactgaat ctgataacaa cttcacttct ttttataata attataaaaa tgacttgctt 360
gaatataaag ataaagaaga aatgtttcct aaaaaaccga tacctgaaaa caccataccg 420
atttcaatga ttccttggat tgattttagt tcatttaatt taaacattgg taacaatagc 480
aacttttttat tgcctattat tacgataggt aaattttata gtgagaataa taaaatttat 540
ataccagttg ctttgcagct tcatcatgct gtatgtgatg gttaccatgc ttcattattt 600
atgaatgaat ttcaagatat aattcataag gtagatgatt ggatttag 648

<210> 2163
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2163
accttcatcc taccgatgtg ggtt 24

<210> 2164
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2164

caacgacacc agcactgcca ttg 23

<210> 2165
<211> 1215
<212> DNA
<213> Salmonella typhimurium strain H3380

<400> 2165
atgaccacca cacgccccgc gtgggcctat acgctgccgg cagcactgct gctgatggct 60
cctttcgaca tcctcgcttc actggcgatg gatatttatc tccctgtcgt tccagcgatg 120
cccggcatcc tgaacacgac gcccgctatg atccaactca cgttgagcct ctatatggtg 180
atgctcggcg tgggccaagt gatttttggt ccgctctcag acagaatcgg gcgacggcca 240
attctacttg cgggcgcaac ggctttcgtc attgcgtctc tgggagcagc ttggtcttca 300
actgcaccgg cctttgtcgc tttccgtcta cttcaagcag tgggcgcgtc ggccatgctg 360
gtggcgacgt tcgcgacggt tcgcgacgtt tatgccaacc gtcctgaggg tgtcgtcatc 420
tacggccttt tcagttcgat gctggcgttc gtgcctgcgc tcggccctat cgccggagca 480
ttgatcggcg agttcttggg atggcaggcg atattcatta ctttggctat actggcgatg 540
ctcgcactcc taaatgcggg tttcaggtgg cacgaaaccc gccctctgga tcaagtcaag 600
acgcgccgat ctgtcttgcc gatcttcgcg agtccggctt tttgggttta cactgtcggc 660
tttagcgccg gtatgggcac cttcttcgtc ttcttctcga cggctccccg tgtgctcata 720
ggccaagcgg aatattccga gatcggattc agctttgcct tcgccactgt cgcgcttgta 780
atgatcgtga caacccgttt cgcgaagtcc tttgtcgtca gatggggcat cgcaggatgc 840
gtggcgcgtg ggatggcgtt gcttgtttgc ggagcggtcc tgttggggat cggcgaactt 900
tacggctcgc cgtcattcct caccttcatc ctaccgatgt gggttgtcgc ggtcggtatt 960
gtcttcacgg tgtccgttac cgcgaacggc gctttggcag agttcgacga catcgcggga 1020
tcagcggtcg cgttctactt ctgcatccaa agcctgatag tcagtatcgt cgggacattg 1080
gcggtgacgc tgttaaacgg cgatacagcg tggcccgtga tttgttacgc cacggcaatg 1140
gcagtgctgg tgtcgttggg gctggcgctc cttcgatccc gtgatgctgc caccgagaag 1200
tcgccagtcg tctag 1215

<210> 2166
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2166
gacaaaccat tcctgctg 18

<210> 2167
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2167
cagcagctgg gcggcggt 18

<210> 2168
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2168
catcaaagtt ggtgaagaag ttg 23

<210> 2169
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2169
cccgtttgcg aaaggtgg 18

<210> 2170
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2170
acgtgacgtt gacaaacca 19

<210> 2171
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2171
tcgttggatt aactgaagaa 20

<210> 2172
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2172
gtgttgaaat gttccgtaaa 20

<210> 2173
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2173

aagaaaaaat cttcgaactg gcta 24

<210> 2174
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2174
tctacacggc cggtg 15

<210> 2175
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2175
ccgccatacc ccgttt 16

<210> 2176
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2176
cggcattacc atttccacac cttt 24

<210> 2177
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2177
ggcacggaca aaccattcct gctgcctatc gaagacgtgt tcccgtgcc 49

<210> 2178
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2178
ggcacgacaa accattcctg ctgcctatcg aacgtgcc 38

<210> 2179
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2179
ggcagctcta cttccgtacc actgacgtaa ccggctgcc 39

<210> 2180
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2180
ttcgccggcg tgggc 15

<210> 2181
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2181
agcgccacgc gcagg 15

<210> 2182
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2182
gcgcgccaac gacttctacc acgaaatgga agagtcgcgc gc 42

<210> 2183
<211> 817
<212> DNA
<213> Alcaligenes faecalis subsp. faecalis ATCC 8750

<400> 2183
tatcttggtt wgctcggccg ctgacggccc aatgcctcag actcgcgagc acatcctgct 60
gagccgtcag gttggcgttc cttacatcat cgtgttcctg aacaaggccg acatggttga 120
tgacgaagag ctgatcgaac tggttgaaat ggaagttcgc gagctgttgt ccaagtacga 180
cttccctggc gacgacaccc cgatcatcaa gggttcggcc aaactggctc tggaaggcga 240
cgaaggccca ctgggcagcc aagccgttct ggctctggcc gaagcgctgg acaactacat 300
tcctacgcct gagcgtgccg ttgacggtac gttcctgatg cctgttgaag acgtgttctc 360
gatctccggc cgtggtacgg ttgtgaccgg tcgtattgag cgcggcatca tcaaggtcgg 420

cgaagaaatc gaaatcgtgg gtatcaaaga cacggtcaag accatttgta ccggcgttga 480
aatgttccgc aaactgctgg accagggcga agctggcgat aacgtcggtc tgctgctgcg 540
tggtaccaag cgtgaagacg tggaacgtgg tcaagttctg gccaagccag gctcgatcaa 600
gccacacact gacttcgacg ccgaggtgta cattctgtcc aaagaagaag gtggtcgtca 660
cactcctttc ttcaagggct accgtcctca gttctacttc cgtacaactg acgtgaccgg 720
caccatcgag ctgccagaag acaaggaaat ggttctgcca ggcgacaaca tttcgatgaa 780
agtgtccctg atcgctccta tcgccatgga agaaggt 817

<210> 2184
<211> 1652
<212> DNA
<213> Campylobacter coli ATCC 43479

<400> 2184
tacaattgaa gttgaaagat ctatgcgtgt tcttgatggt gctgttgcgg tattttgttc 60
agtgggtggg gtgcagcctc aaagtgaaac agtttggaga caagcaaata aatatggtgt 120
tccaagaata gtatttgtaa ataaaatgga tagaatcggt gcaaatttct acaatgtaga 180
agatcaaatt cgcaaccgtt taaaagctaa tccagttcca cttcaaattc caatcggtgc 240
tgaggataat tttaaaggcg taatcgatct tgtaactatg aaagctttag tttgggaaga 300
tgatactaag ccaacggatt atgtagaaaa agaaattcca gctgaactta aagaaaaggc 360
agaagaatat cgcacaaaaa tgatagaagc agtttctgaa acttcagatg agttgatgga 420
aaaatattta ggtggagaag aattaagcct tgaagagatt aaaacaggga ttaaagcagg 480
atgtttaagt ctttctatcg ttcctatgct ttgcggtaca gcgtttaaaa ataaaggggt 540
tcaacctttg cttgatgctg ttgtggctta tttaccagct cctgatgaag ttgctaatat 600
caaaggggaa tatgaagacg gcacagaagt ttctgtaaaa tcaactgatg atggcgaatt 660
tgcaggactt gcatttaaaa ttatgacaga tccatttgta ggacaactta ctttcgtgcg 720
tgtttatcgt ggatgtttag aaagcggttc ttatgcttat aactcaacca aagataaaaa 780
agaaagaatt ggtcgtttgt taaaaatgca ctctaataaa agagaagaaa ttaaagttct 840
ttacgcagga gaaatcggtg cagttgtagg acttaaagat actttaacag gggatactct 900
tgcaagtgaa aaagataaag taattcttga aagaatggat ttcccagacc cagttatttc 960
tgttgcagta gamccaaaaa ctaaagcaga tcaagaaaaa atgtctattg cactaaataa 1020
attagctcaa gaagatccaa gctttagagt ttctacggat gaagaaagtg gtcaaactat 1080
catttcaggt atgggtgaat tacaccttga aattattgtt gatcgtatgc ttcgtgaatt 1140
taaagtggaa gctgaagtgg gacaacctca agttgcttat cgtgaaacta tcagaaaaac 1200
tgttgagcaa gaatacaaat acgctaagca atcaggcggt cgtggtcagt atggacatgt 1260
attcttacgc cttgagccac ttgagccagg aagtggatac gagtttgtta acgacatcaa 1320
aggtggggta attccaaaag aatatattcc tgcagtagat aagggtgttc aagaagcatt 1380
gcaaaatggt gttttagcag gttatccagt agaagatgtt aaagtaactg tttatgatgg 1440
aagttatcac gaggtggatt catctgagat ggcatttaaa cttgctgctt ctatgggatt 1500
taaagagggt gctagaaaag caggtgctgt gatcttagag cctatgatga aagttgaagt 1560
agaaactcct gaagattaca tgggcgatgt tattggcgat cttaataagc gtcgtggtca 1620
agtaaatagc atggatgaaa gaggtggtaa ta 1652

<210> 2185
<211> 820
<212> DNA
<213> Succinivibrio dextrinosolvens ATCC 19716

<400> 2185
gctattctag tagtagcagc aactgatggt cctatgccac agacccgtga gcacatccta 60
ttagcacgtc aggtaggcgt accatacatc atcgtattcc taaacaagtg cgatatggtt 120
gacgacgagg aattattaga gttagttgag atggacgtac gtgatctatt aaatcagtac 180
cagttcccag gcgacgacac tccaatcatc cgtggttcag cactaggtgc attaaacggc 240
gaagagaagt ggaaagaggc aatctatcag ttagcagaca ctctagattc atacattcca 300
gagccaaagc gtgatatcga tgatccattc ctattaccaa tcgaagatat cttctcaatc 360
tcaggtcgtg gtactgtagt aaccggccgt gtagagcgtg gtattgtaca cgtaggtgac 420
gaagttgaaa tcgttggtat tcgtccaacc accaagacca ctgtaactgg cgttgaaatg 480
ttccgtaagt tactagacga aggtcgtgca ggtgataacg ttggtgttct actacgtggt 540
accaagcgtg atgaggttga gcgtggtcag gttctagctg ctccaggcac aatcactcca 600
cacaccaagt tcactggtca ggtttacgta ctaagcaagg atgaaggtgg tcgtcacact 660
ccattcttca agggctaccg tccacagttc ttcttccgta caaccgatat taccggttct 720
atcgatctga aagagggcgt agagatggta atgccaggtg ataacaccga catgaccgta 780
accctaatcc acccagtagc tatggctgaa ggcgagagat 820

<210> 2186
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2186
acgcgctcaa agcagaagta tacgtattat caaaagacgc gcgt 44

<210> 2187
<211> 1612
<212> DNA
<213> Campylobacter jejuni subsp. jejuni ATCC 33292

<400> 2187
cagtgggtgg ggtgcagcct caaagtgaaa cagtttggag acaagcaaat aaatatggtg 60
ttccaagaat agtatttgta aacaaaatgg atagaatcgg tgcaaatttc tacaatgtag 120
aagatcaaat tcgcaaccgt ttaaaagcta atccagttcc acttcaaatt ccaatcggtg 180
ctgaggataa ttttaaaggc gtaatcgatc ttgtaactat gaaagcttta gtttgggaag 240
atgatactaa gccaacggat tatgtagaaa aagaaattcc agctgaactt aaagaaaagg 300
cagaagaata tcgcacaaaa atgatagaag cagtttctga aacttcagat gagttgatgg 360
aaaaatattt aggcggagaa gaattaagcc ttgaagagat taaaacaggg attaaagcag 420
gatgtttaag tctttctatc gttcctatgc tttgcggtac agcgtttaaa aataaagggg 480
ttcaaccttt acttgatgct gttgtggctt atttaccagc tcctgatgaa gtggcaaata 540
tcaagggtga atatgaagat ggcacagaag tttctgtaaa atcaactgat gatggcgagt 600
ttgcaggact tgcatttaaa attatgacag atccatttgt aggacaactt actttcgtgc 660
gtgtttatcg cggttgttta gaaagtggtt cttatgctta taactcaact aaagataaaa 720
aagaaagaat tggtcgtttg ttaaaaatgc actctaacca aagagaagag attaaagtgc 780
tttacgcagg cgaaattggt gctgttgtag gacttaaaga tactttaaca ggggatactc 840
ttgtaagtga aaaagataag gtaatccttg aaagaatgga ttttccagat ccagttattt 900
ctgttgcagt tgagccaaaa actaaagcag atcaagaaaa aatgtctatt gctttaaata 960
aattagcaca agaagatcca agttttagag tttctacaga tgaagaaagt ggccaaacta 1020
tcatttcagg tatgggtgag ttacaccttg aaattatcgt tgatagaatg cttcgtgaat 1080
ttaaagttga agctgaagta ggtcaaccac aagttgctta tcgcgaaact attagaaaaa 1140
ctgttgaaca agaatacaaa tacgctaaac aatcaggtgg tcgtggtcag tatggacatg 1200
tattcttacg ccttgaacca cttgagccag gtagtggata tgaatttgtt aatgatatca 1260
aaggtggagt aattccaaaa gaatacattc ctgcagttga taaaggtgtt caagaagcat 1320
tacaaaatgg tgttttagca ggttatcctg tggaagatgt taaagtaact gtttatgatg 1380
gaagttatca cgaggtggat tcatctgaga tggcgtttaa acttgctgct tctatgggct 1440
ttaaagaagg tgctagaaaa gcaggtgctg tgatcttaga gcctatgatg aaagttgaag 1500
tagaaactcc tgaagattac atgggtgatg ttattggaga tcttaacaaa cgccgtggtc 1560
aagtaaatag catggatgag cgtggtggaa ataaaatcat cacagcattt tg 1612

<210> 2188
<211> 1667
<212> DNA
<213> Campylobacter jejuni subsp. jejuni ATCC 33560

<400> 2188
acaattgaag ttgaaagatc tatgcgtgtt cttgatggtg ctgttgcggt attttgttca 60
gtgggtgggg tgcagcctca aagtgaaaca gtttggagac aagcaaataa atatggtgtt 120
ccaagaatag tatttgtaaa taaaatggat agaatcggtg caaatttcta caatgtagaa 180
gatcaaattc gcaaccgttt aaaagctaat ccagttccac ttcaaattcc aattggtgct 240
gaggataatt ttaaaggcgt aatcgatctt gtaactatga aagctttagt ttgggaagat 300
gatactaagc caacggatta tgtagaaaaa gaaattccag ctgaacttaa agaaaaggca 360
gaagaatatc gcacaaaaat gatagaagca gtttctgaaa cttcagatga gttgatggaa 420
aaatatttag gcggagaaga attaagcctt gaagagatta aaacagggat taaagcagga 480
tgtttaagtc tttctatcgt tcctatgctt tgcggtacag cgtttaaaaa taaaggggtt 540
caacctttgc ttgatgctgt tgtggcttat ttaccagctc ctgatgaagt ggcaaatatc 600
aagggtgaat atgaagatgg cacagaagtt tctgtaaaat caactgatga tggcgagttt 660
gcaggacttg catttaaaat catgacagat ccatttgtag gacaacttac tttcgtgcgt 720

gtttatcgcg gttgtttaga aagcggttct tatgcgtata actcaactaa agataaaaaa 780
gaaagaattg gtcgtttgtt aaaaatgcac tctaacaaaa gagaagagat taaagtgctt 840
tacgcaggcg aaattggtgc tgttgtagga cttaaagata ctttaacagg ggatactctt 900
gcaagtgaaa aagataaggt aatccttgaa agaatggatt ttccagatcc agttatttct 960
gttgcagttg agccaaaaac taaagctgat caagaaaaaa tgtctattgc tttaaataaa 1020
ttagcacaag aagatccaag ttttagagtt tctacagatg aagaaagtgg tcaaactatc 1080
atttcaggta tgggtgagtt acaccttgaa attatcgttg atagaatgct tcgtgaattt 1140
aaagttgaag ctgaagtagg tcaaccacaa gttgcttatc gcgaaactat tagaaaaact 1200
gttgaacaag aatacaaata cgctaaacaa tcaggtggtc gtggtcagta tggacatgta 1260
ttcttacgcc ttgaaccact tgagccaggt agtggatatg aatttgttaa tgatatcaaa 1320
ggtggggtaa ttccaaaaga atacattcct gcagttgata aaggtgttca agaagcatta 1380
caaaatggtg ttttagcagg ttatcctgtg gaagatgtta aagtaactgt ttatgatgga 1440
agttatcacg aggtggattc atctgagatg gcgtttaaac ttgctgcttc tatgggcttt 1500
aaagaaggtg ctagaaaagc aggcgctgtg atcttagagc ctatgatgaa agttgaagta 1560
gaaactcctg aagattatat gggtgatgtt attggagatc ttaacaaacg ccgtggtcaa 1620
gtaaatagca tggatgagcg tggtggaaat aaaatcatca cagcatt 1667

<210> 2189
<211> 1255
<212> DNA
<213> Leishmania guyanensis ATCC 50126

<400> 2189
tgacggcgct ggacgtgacg gaggacctcg gccgcgatga gccgctgacg ctggagatcg 60
tgcagcactt ggatgcgaac accggccgct gcattgcgat gcagacgacg gacctgctga 120
agctgaagtc gaaggttgtg tcgaccggcg gcaacatctc cgtgccggtg ggccgcgaga 180
cactgggccg catcttcaac gtgctgggcg acgcgattga ccaccgcggc cccgtgtgcg 240
agaagatgcg catggcgatc cacgccgagg cgccgaagct ggcggaccag gctgcggagg 300
acacgatcct gacgaccggc atcaaggtga tcgacctgat tctgccctac tgcaagggcg 360
gcaagatcgg cctgttcggc ggtgccggtg tgggcaagac tgtgatcatc atggagctga 420
tcaacaacgt cgcgaagggg cacggcggct tctccgtgtt cgccggcgtt ggcgagcgca 480
cgcgcgaggg cacggacctg tacctggaga tgatgcagtc aaaggtgatt gacctgaagg 540
gcgagtcgaa gtgcgtgctt gtgtacgggc agatgaacga gcccccgggt gcgcgcgcgc 600
gcgttgcgca gtctgcgctg acgatggccg agtacttccg cgacgtggag ggccagaacg 660
tgctgctgtt catcgacaac atcttccgct tcacgcaggc gaactccgag gtgtctgcgc 720
tgctgggccg catcccggcc gccgtgggtt accagccgac gcttgcggag gatcttggca 780
tgctgcagga gcgcattacg tcgacgacga agggatcgat tacgtctgtg caggctgtgt 840
acgtgcctgc ggatgatatc acggaccccg cgcccgcgac gacgttctcg cacctggacg 900
cgacgactgt gctggaccgc gcggtggcgg agtcgggcat ctaccctgcc gtgaacccgc 960
tggagtgcgc gtcgcgcatc atggaccccg atgtgatcga cgtggaccat tacaacgttg 1020
cacaggatat cgtccagatg ctgaccaagt acaaggagct gcaggacatc attgcggtgc 1080
ttggcatcga cgagctgagc gaggaggaca aggtcgtggt ggaccgcgcg cgcaaggtga 1140
cgcggttcct gtcgcagccg ttccaggttg cggaggtgtt caccggcatg acgggccact 1200
acgtgcagct gagcgacacg gtggagtcgt tctctggcct gctgatgggg tcgta 1255

<210> 2190
<211> 1248
<212> DNA
<213> Trypanosoma brucei subsp. brucei strain EATRO795

<400> 2190
gcccttgacg ttgttgacaa acttggccgt gatgagcctc ttactcttga gatcgtgcag 60
catcttgacg cccacacggg ccgctgtatc gcgatgcaaa cgacggatct cctcaaactg 120
aaggcaaagg tcgtttcgac aggtggcaac atttccgttc ctgtcggccg ggaaacacta 180
ggtcgtatct tcaacgtgct tggagacgct attgaccagc gcggccccgt tggtgagaaa 240
ctgcgcatgc ccatccatgc cgtggctccc aagcttgcgg accaggccgc tgaggatgcg 300
gtgctcacaa ctggtattaa ggtgattgat ctcattctcc cttactgcaa aggtggaaaa 360
attggcctct ttgggggtgc gggtgtgggc aaaaccgtca ttattatgga gctcattaac 420
aacgttgcca agggtcacgg tggtttctct gtcttcgctg gtgttggtga gcgtacccgt 480
gagggaacgg atttgtatct tgagatgatg cagtctaagg ttattgacct taagggtgag 540
tccaaatgtg tgttggtgta cggtcagatg aacgagcccc caggtgcccg tgcgcgtgtt 600
gcgcagtcgg ctctgacgat ggctgagtac ttccgtgatg tggagggcca agatgtgctt 660
ctttttatcg acaatatttt tcgtttcact caggctaact ccgaggtgtc ggcgcttctg 720
ggtcgtattc ccgccgctgt tggctaccag cctaccctcg ctgaggatct agggcagttg 780

caggagcgta ttacctcaac aacgaaaggc tccattactt ctgtgcaggc cgtatacgtg 840
ccggccgatg acattaccga tccagctcca gcaacaacct tctcacatct ggacgccaca 900
actgtgttgg accgtgctgt tgccgagtct ggtatctacc ccgctgttaa cccactggaa 960
tgcgcctcgc gtatcatgga ccccgacgtt atcagtgtgg atcactacaa tgttgcacaa 1020
gatgtggtac agatgctcac caagtacagg gaattacagg atatcattgc tgtccttggt 1080
atcgacgagc taagcgagga ggacaaactt atcgtggacc gtgcgcgtaa gttggtgaag 1140
ttcctctccc agccattcca agttgctgag gtcttcacag gaatgactgg ccattacgtg 1200
cagttggatg acaccatcga ttccttttct ggtctcctca tgggtacg 1248

<210> 2191
<211> 440
<212> DNA
<213> Aspergillus nidulans strain WSA-176

<400> 2191
gagctgattg taagtcatcg accacttgat atatgaatac atctaacagt agtagaacaa 60
catcgccaag gctcacggtg gttactccgt cttcactggt gtcggtgagc gtactcgtga 120
gggtaacgat ctgtaccacg aaatgcagga gactggtgtc attcagctcg acggcgaatc 180
caaggtgtct cttgtgttcg gtcagatgaa cgagccccca ggtgctcgtg cccgtgtcgc 240
ccttactggt ctgaccatcg ccgaatactt ccgtgacgag gagggtcagg acgtgctgct 300
cttcattgac aacattttcc gtttcaccca ggccggttcc gaggtgtctg cccttcttgg 360
tcgtatcccc tctgccgtcg gttaccagcc cactctggcc gtcgacatgg gtggtatgca 420
ggaacgtatt accaccacca 440

<210> 2192
<211> 1262
<212> DNA
<213> Leishmania panamensis ATCC 50158

<400> 2192
gctgacggcg ctggacgtga cggaggacct cggccgcgat gagccgctga cgctggagat 60
cgtgcagcac ttggatgcga acaccggccg ctgcattgcg atgcagacga cggacctgct 120
gaagctgaag tcgaaggttg tgtcgaccgg cggcaacatc tccgtgccgg tgggccgcga 180
gacgctgggc cgcatcttca acgtgctggg cgacgcgatt gaccaccgcg gccccgtgtg 240
cgagaagatg cgcatggcga tccacgccga ggcgccgaag ctggcggacc aggctgcgga 300
ggacacgatc ctgacgaccg gcatcaaggt gatcgacctg attctgccct actgcaaggg 360
cggcaagatc ggcctgttcg gcggtgccgg tgtgggcaag actgtgatca tcatggagct 420
gatcaacaac gtcgcgaagg ggcacggcgg cttctccgtg ttcgccggcg ttggcgagcg 480
cacgcgcgag ggcacggacc tgtacctgga gatgatgcag tcaaaggtga ttgacctgaa 540
gggcgagtcg aagtgcgtgc ttgtgtacgg gcagatgaac gagcccccgg gtgcgcgcgc 600
gcgcgttgcg cagtctgcgc tgacgatggc cgagtacttc cgcgacgtgg agggccagaa 660
cgtgctgctg ttcatcgaca acatcttccg cttcacgcag gcgaactccg aggtgtctgc 720
gctgctgggc cgcatcccgg ccgccgtggg ttaccagccg acgcttgcgg aggatcttgg 780
catgctgcag gagcgcatta cgtcgacgac gaagggatcg attacgtctg tgcaggctgt 840
gtacgtgcct gcggatgata tcacggaccc cgcgcccgcg acgacgttct cgcacctgga 900
cgcgacgact gtgctggacc gcgcggtggc ggagtcgggc atctaccctg ccgtgaaccc 960
gctggagtgc gcgtcgcgca tcatggaccc cgatgtgatc gacgtggacc attacaacgt 1020
tgcacaggat atcgtccaga tgctgaccaa gtacaaggag ctgcaggaca tcattgcggt 1080
gcttggcatc gacgagctga gcgaggagga caaggtcgtg gtggaccgcg cgcgcaaggt 1140
gacgcggttc ctgtcgcagc cgttccaggt tgcggaggtg ttcaccggca tgacgggcca 1200
ctacgtgcag ctgagcgaca cggtggagtc gttctctggc ctgctgatgg ggtcgtacga 1260
cc 1262

<210> 2193
<211> 912
<212> DNA
<213> Aspergillus nidulans strain WSA-176

<400> 2193
ttccgatggt caaatgtacg attgatattc cttccagcca gtcaggataa cagctgatac 60
cagttgcaaa taggccccag actcgtgagc acttgttgct tgcccgtcag gttggtgtcc 120
agaagatcgt tgtcttcgtc aacaaggttg acgctgtcga tgaccctgag atgttggagc 180
ttgttgagct cgagatgcgt gagctcctca acacttacgg tttcgaggga gaggagaccc 240

ctatcatctt cggttccgcc ctgtgcgctc tcgaaggccg ccgcgaggac attggtactc 300
agcgtattga ctccctcctc gaggccgttg acacttggat ccctaccccc cagcgtgact 360
tggacaagcc cttcctgatg tccattgagg aagttttctc cattggtggt cgtggtaccg 420
tcgcctctgg tcgtgtcgag cgtggtctcc tcaagaagga taccgaagtt gaaattcacg 480
gtgctgatgg tattctgaag accaaggtca ccgacattga gaccttcaag aagagctgcg 540
atgagtctcg tgctggtgac aactccggtc ttctcctccg tggtatccgt cgtgaggatg 600
ttcgtcgtgg tatggtcatc gctgcccctg gctccatcaa ggcctccaag aagttcatgg 660
tctccatgta cgtcttgact gaggctgaag gtggccgcaa gaacggcttc ggtgccaact 720
accgccccca ggctttcatc cgcactgctg gtaagtttcg aactatttga ttcattgatc 780
acgtccctaa ctgttacttt agacgaggct tgcgaccttc atttccctga tgaggccgac 840
aaggaccgcc acgtcatgcc cggtgacaac gtcgaaatgg tcctcaacct caacaacccc 900
gttgctgctg ag 912

<210> 2194
<211> 887
<212> DNA
<213> Aureobasidium pullulans strain WSA-234

<400> 2194
tcatcgtcgt cgccgcttct gacggtcaga tgccccagac cagagagcac ttgcttctcg 60
cccgtcaggt cggtatccag aagattgtcg tcttcgtcaa caaggtcgac gccatcgagg 120
acaaggagat gcttgagctc gtcgagatgg agatgcgtga gctcctcagc agctacggct 180
tcgagggtga cgagaccccc atcgtcatgg gttccgctct ttgtgccctt gagaaccgcc 240
agcccgagat tggaaccacc cagatcgaca acctgatgaa cgctgtcgac gagtggatcc 300
ccactcccca gagagatctt gagaagccct tcctcatgtc cgttgaggat gtcttctcta 360
tccccggtcg tggtactgtc gtttctggcc gtgttgagcg tggtaccctg aagaaggatt 420
ccgaaatcga gcttgtcggc aagaacaagg tccccatcaa gaccaaggtc accgacatcg 480
agaccttcaa gaagtcttgc gacgagtccc gcgctggtga caactccggt cttctgctcc 540
gtggtatcaa gcgtgaggat gtcaaccgtg gtatggttgt cgtcaagccc ggtaccgtca 600
cctcgcacaa gaagttcctc gtctccatgt acgtcctgac caaggaggag ggtggtcgtc 660
acactggttt ccacggaaac taccgtcccc agatcttcat ccgtaccgct ggtaagtcct 720
gactttgaac tgctgaccaa ttttcgcatc tctaacatgt tttacagacg aggctgccgc 780
tattgactgg cccgaaggca ccgaggacgc tgactccaag atggtcatgc ccggtgacaa 840
cgtcgagatg gtctgctctc ttcacagacc tcttgccgtt gaacagg 887

<210> 2195
<211> 984
<212> DNA
<213> Emmonsia parva ATCC 10784

<400> 2195
tgacggccaa atgtaggact cttgcgcggg actgactgat tgggggggaat ccatttttc 60
ttttttcttt ttctttttga gtacatgatt atactaatat ttggataacg taccaggcct 120
caaacacgtg aacatttact ccttgcccga caagtcggtg tccagaagat cgtcgttttc 180
gtaaacaagg tcgatgttct cgaagataag gagatgttgg agcttgtcga gttggaaatg 240
agagagctct tgaacaccta cggattcgag ggtgaggaaa cgcccatcat cttcggttct 300
gccctttgtg ccatggaggg ccgcgagcct gagctgggcg agaagagaat tgatgaattg 360
ctcgacgctg ttgatagctg gatccctacg ccgcaacgtg atacggaaaa acccttccta 420
atgtccattg aggaagtgtt ctccatctcc ggtcgtggaa ccgttgcctc cggccgtgtt 480
gagcgtggtg tcctcaagaa ggattccgaa gtcgagcttg ttggcggcgg cgtcgcccca 540
atcaggacca aggtaaccga tatcgaaacc ttcaagaagt cctgcgacga gtccagggct 600
ggagacaact ctggcctttt gttgcgtggt gtcaagcgtg aggatatccg ccgtggtatg 660
gtcgttgtcg ttcctggcag cgtcaaggcc cacgacaagt tcttggtgtc catgtatgtt 720
ctgaccgaag ccgagggtgg tcgccgaact ggattcggcc aaaactatcg tcctcaaatg 780
tttatccgca cagctggtac gtaacgtata atgcctctcc tcttcatata taccaccccc 840
cccaccactg actccctgac tcttcgatta cagacgaggc cgccgatctc agcttccctg 900
acgcagcaga cgaaaccaaa ctggttatgc ccggtgacaa cgtcgagatg atcctcaaga 960
cacaccgccc catagctgcc gaag 984

<210> 2196
<211> 806
<212> DNA
<213> Exserohilum rostratum strain WSA-215

<400> 2196
gccgcctctg acggccaaat gccccagacc cgtgagcact tgctgcttgc tcgccaggtc 60
ggtgttcaga agattgttgt ttttgtcaac aaggtcgatg ccgtcgagga caaggagatg 120
ttggagctcg ttgagatgga gatgcgtgag ttgctcagca gctatggctt cgagggcgat 180
gagactccca ttgtcatggg ctccgctctc tgcgccatcg agggccgtga gcccgaaatt 240
ggtgtcaacc gtattgatga gctgctcgag gctgtcgaca cctggatccc caccctcag 300
cgtgataccg acaagcccct cctcatggct gttgaggacg tcttctccat tgctggccgt 360
ggtaccgtcg tttctggccg tgtcgagcga ggtgtcttga agcgcgatgc cgaagtcgag 420
ctggttggca agggcactgc gcccatcaag accaaggtta ccgacattga aaccttcaag 480
aagtcgtgtg aagagtctcg cgccggtgac aactcgggtc tcctcctccg tggtgtcaag 540
cgtgacgacg tccgccgtgg catggtcgtt tctgttcctg gacaagtcaa ggcccacaag 600
aagttcctcg tctccatgta tgtgttgagc aaagaggaag gtggccgcca cacgggcttc 660
ggcgagaact acaggccaca aatgttcatc cgtactgctg acgagtcatg cgcgctgcac 720
tggccagaag gtaccccaga tgctcacgac aagcttgtta tgcctggtga taacgttgag 780
atggtttgtg agcttcacgt gccaca 806

<210> 2197
<211> 799
<212> DNA
<213> Fusarium moniliforme strain WSA-213

<400> 2197
acccgtgaac acttgctcct cgctcgtcag gttggtgttc agcgaattgt cgtctttgtc 60
aacaaggtcg atgccattga tgaccccgag atgcttgagc tcgtcgagat ggagatgcgc 120
gagcttctta acacctatgg cttcgaaggc gacgacactc ccgtcatcat gggctcggct 180
ctcatgtctc tccagaacca gcgccctgag attggcaccg agaagattga tgagcttctt 240
gctgccgtcg acgagtggat cccaaccccc gagcgtgacc ttgacaagcc cttccttatg 300
tccgtcgagg atgtcttctc cattgctggc cgtggtaccg tcgtgtctgg ccgtgtggag 360
cgtggtgttc tgaagcgtga ccaggagatc gagcttgttg gaaagggtca ggaggttatc 420
aagaccaagg ttaccgacat cgagaccttc aagaagtctt gtgagcagtc ccaggctggt 480
gacaactctg gtctcctcat ccgaggtgtt cgccgtgagg atgtccgccg tggtatggtc 540
gtctgcgctc ctggcaccgt gaagtctcac acccagttcc tcgcttccct ctatgtcctc 600
tccaaggagg agggtggccg acacaccggt ttccaggagc actaccgacc ccagctctac 660
ctccgaaccg cagatgagtc cattgacctg actttccctg agggtactga ggatgcctcc 720
agcaagatgg tcatgcctgg cgacaacacc gagatggttg tcaccatggg tcaccccaat 780
gccatcgagg ttggtcagc 799

<210> 2198
<211> 819
<212> DNA
<213> Fusarium solani ATCC 32793

<400> 2198
ctctgacggt cagatgcccc agacccgtga gcacttgctg cttgcccgtc aggtcggtgt 60
ccagaagatt gtcgtcttcg tcaacaaggt cgatgccatt gacgaccctg agatgcttga 120
gctcgtcgag atggagatgc gtgagctcct caacacctac ggcttcgagg gtgacgagac 180
ccctgtcatc atgggctctg ctctcatgtc cctccagaac cagcgccccg agatcggtag 240
ccagaagatt gacgagctcc ttgccgccgt tgacgagtgg atccctaccc ccgagcgtga 300
ccttgacaag cccttcctca tgtccgttga ggatgtcttc tccattgccg gccgtggtac 360
cgtcgtctct ggccgtgtcg agcgtggtgt cctgaagcgc gaccaggaga ttgagctcgt 420
cggcaagggt aacgaggtca tcaagaccaa ggtcaccgac attgagacct tcaagaagtc 480
ttgcgagcag tcccaggctg gtgacaactc tggtctcctc atccgaggtg tccgccgtga 540
ggatgtccgc cgtggtatgg tcgtctgcgc ccccggcact gtcaagtccc acactcagtt 600
cctttcttcc ctctacgtcc tcaccaagga ggagggtggc cgacacactg gcttccagga 660
gcactaccga ccccagctct acctccgaac tgctgatgag tccatcgacc tgaccttccc 720
cgagggtacc gaggacgcca gcagcaagat ggtcatgccc ggtgacaaca ccgagatggt 780
catcaccatg ggccacccca acgccattga ggtcggtca 819

<210> 2199
<211> 1025
<212> DNA
<213> Histoplasma capsulatum strain WSA-377

<400> 2199
tgctgacggc caaatgtaag acgccgcgag ggagtgctga aggttttatg ctttttaggc 60
cctttgtttc tgagagcatg atgatactaa tactcggaaa cgtatctatt aggcctcaaa 120
cacgtgagca tttgctcctt gcccgacagg tcggtgtcca aaagatcgtc gttttcgtga 180
acaaagtcga cgcccttgag gacaaggaga tgttggagct tgtcgagtta gaaatgagag 240
agctcttaaa cacctacgga tttgagggtg aagagacacc catcatcttt ggttctgccc 300
tttgcgccat ggaaggccgt gagcctgagt tgggagaaaa gaaaattgat gaattgctgg 360
aggctgttga tacttggatc ccaacaccac aacgtgatac cgaaaaacct ttcttgatgt 420
ccgttgagga agtattctct atctccggtc gtggaaccgt tgcctccggt cgtgttgagc 480
gcggtgtcct caagaaggat tcagaagtcg agctaattgg gggcggctcc acccccatca 540
ggacgaaggt aactgatatc gaaactttca agaaatcctg tgacgagtct agagctgggg 600
acaactccgg tcttttattg cgtggtatca agcgtgaaga tatccgccgt ggtatggtag 660
ttgccgttcc tggcagcgtc aaggcccacg acaagttctt ggtgtcgatg tatgtcctga 720
ccgaagctga gggtggtcgc cgaaccggat tcggccagaa ctatcgtcct caaatgttca 780
tccgcacagc tggtatgtca aaatggggcc ccttttcata atcctttctt tttttccttt 840
tcctctctct atctctctct ctgtttcttt tcaactcgcc tgattcacga aattaactaa 900
ccccttttgat tatagacgaa gccgcccatc tcagcttccc tagtggagca gatgaaagca 960
aactcgttat gcctggtgac aacgtcgaga tgatcctcca gacacaccgc cccgtggctg 1020
ctgag 1025

<210> 2200
<211> 667
<212> DNA
<213> Kocuria kristinae ATCC 27570

<400> 2200
agcacgtgct gctcgcccgc caggtcggcg tgccgaccct gctggtcgcc ctgaacaagg 60
ccgacatggt cgaggacgag gagctgctgg acctcgtcga gatggaggtc cgcgagctgc 120
tgtcctccca ggagttcgac ggcgacaacg cccccgtcat ccgcgtctcc gcgctgaagg 180
cgctggaggg cgacgagaag tgggtcaagt ccatcgagga gctcatggag gccgtggacg 240
agtacatccc ggaccccgtg cgcgacaagg acaagccgtt cctgatgccc atcgaggacg 300
tcttcaccat caccgggcgc ggcaccgtgg tgaccggtcg cgccgagcgc gggaccctgg 360
ccctgaactc cgaggtcgag atcgtcggca tccgcccgat ccagaagacc acggtcaccg 420
ggatcgagat gttccacaag cagctcgacg aggcctgggc cggcgagaac tgcggtctgc 480
tgctgcgcgg cctgaagcgc gacgacgtcg agcgcggcca ggtcgtggtg aagccgggtt 540
ccatcacccc gcacaccaac ttcgaggcga acgtctacat cctgtccaag gacgagggtg 600
ggcgtcacaa cccgttctac tcgaactacc gtccgcagtt ctacttccgg accaccgacg 660
tcaccgg 667

<210> 2201
<211> 778
<212> DNA
<213> Vibrio mimicus ATCC 33653

<400> 2201
tgctgcaaca gatggtccaa tgccacaaac tcgtgagcac atcctgctgg gtcgccaagt 60
aggtattcct tacatcatcg tattcatgaa caaatgtgac atggttgacg atgaagagct 120
tctagagctg gttgagatgg aagttcgtga gcttctgtct gagtacgatt tcccaggtga 180
tgacctgcca gtaatccaag gttcagcact aggcgcgcta aacggcgaag cacagtggga 240
agcgaagatt gttgaactag cagaagcact agattcatac attccagagc cagagcgtgc 300
agtagacatg gcattcctga tgccaatcga agacgtattc tcaatccaag gtcgtggtac 360
agtagtaact ggccgtatcg agcgcggcat cctgaaagtg ggtgacgaag ttgcgatcgt 420
tggtatcaaa gacacagtaa aaactacctg tacaggtgta gaaatgttcc gtaagctgct 480
tgacgaaggt cgtgcaggtg agaacgttgg tgcactgcta cgtggtacta agcgtgaaga 540
agtagagcgt ggtcaagtac tggcgaagcc aggttcaatc accccacaca ctaagttcga 600
atcagaagta tacgtactgt caaaagacga aggtggccgt catactccat tcttcaaagg 660
ttaccgtcca cagttctact tccgtacaac tgacgtaaca ggcagcatcg agcttccaga 720
aggcgtagaa atggtaatgc caggcgacaa catcaagatg gttgtagacc tgattgca 778

<210> 2202
<211> 412
<212> DNA
<213> Citrobacter freundii ATCC 8090

<400> 2202
aacgctgacc ctgcaggtta ttgccgctgc gcagcgtgaa ggtaaaacct gtgcatttat 60
cgatgcagaa cacgcactgg acccggtcta tgcccgtaag cttggcgttg atatcgataa 120
cctgctgtgt tctcagccgg ataccggtga acaagcgctg gaaatctgtg atgcactggc 180
gcgctccggt gcggttgacg ttatcgttgt cgactccgtt gccgcattga cgccgaaggc 240
agaaatcgaa ggcgagattg gcgactctca catgggcctt gcggcgcgta tgatgagcca 300
ggcgatgcgt aagctggccg gtaacctgaa gcagtccaac acgctgctga ttttcatcaa 360
ccagatccgt atgaagattg gcgttatgtt cggtaacccg gaaaccacca cc 412

<210> 2203
<211> 337
<212> DNA
<213> Clostridium botulinum strain 20:1.2

<400> 2203
tttagatcca tcttatgcta gaaatttagg tgttgatata gataacctaa tagtttctca 60
accagataca ggagaacagg ctttagagat aacagaagct ttagtaagat caggagcagt 120
agatgttata gttgtagact ctgtagcagc tttagttcct agggcagaaa tagaaggaga 180
aatgggagac tcacatgtag gtcttcaagc aagacttatg tctcaagccc taagaaaatt 240
agcaggatct ataaataaat ctaagtgtgt agctatattt ataaaccaat taagagaaaa 300
ggttggtata atgtttggaa atccagaaac aactcct 337

<210> 2204
<211> 379
<212> DNA
<213> Francisella tularensis ATCC 29684

<400> 2204
aaagcaaggc ggtactgcag catttgttga tgctgagcat gcactagatc caaaatatgc 60
aaagctttta ggtgttgatg ttgataatct gatcgtgtca cagccggata cgggtgagca 120
agctttagag attgctgata tgttggtacg ttctggagga gttgatattg tagtaattga 180
ctctgttgct gcacttacgc caaaggcaga gattgagggt gacatgggcg actcgcacat 240
gggcttacaa gcaagattaa tgtcacaagc actaagaaaa ctaacggcaa atatcaagcg 300
ctcaaatact ctagtgatat tcattaacca aattcgtatg aagatcgggg ttatgtttgg 360
taaccctgaa actacaact 379

<210> 2205
<211> 337
<212> DNA
<213> Peptostreptococcus anaerobius ATCC 27337

<400> 2205
acttgaccca gtatatgcaa gggctcttgg agtggatata gacaacctag tcatatctca 60
gccagataca ggagaacagg ccctagatat agcagagtcc cttataagat caggagctgt 120
agatatacta gtaatagact cagtagctgc cctagtacct aaggcagaaa tagaaggtga 180
catgggagat tctcacgtag gtctacaggc tagacttatg tcacaggcac ttagaaaatt 240
gactggatct ataaagaagt caaactgtgt tgttatattt atcaaccagt tgagagaaaa 300
agtaggggtt atgttcggta atccagagac aacaaca 337

<210> 2206
<211> 337
<212> DNA
<213> Peptostreptococcus asaccharolyticus strain LSPQ 2639

<400> 2206
tcttgatgct ggatatgcaa aaaaccttgg agtagatgta gaaaatttaa ttatttctca 60
acctgataca ggtgagcaag ccttagaaat aactgaagct cttgtaagat ctaacgctgt 120
tgatttaatt attatagact cagttgccgc acttgtacca aaagcagaaa tcgatggtga 180
catgggagct gcacaaatag gtcttcaagc aagacttatg tctcaagctc ttagaaaatt 240
aactggggca atcaacaagt caaaatgtac cgttgtattt attaaccaac ttagagaaaa 300
agttggtatc atgtttggta acccagaaac tacaaca 337

<210> 2207
<211> 408
<212> DNA
<213> Providencia stuartii ATCC 33672

<400> 2207
ctcacgttgc aagttattgc agcagcacaa cgtagcggaa aaacctgtgc atttatcgac 60
gctgaacatg cgctagatcc aatctatgcg aaaaaactgg gtgttgatat cgataacctt 120
ctatgttctc aacctgatac tggtgagcaa gcattagaga tttgtgatgc actgacgcgt 180
tcaggcgctg ttgatgtcat tatcgttgac tccgtggccg cattaacacc aaaagctgaa 240
attgaaggtg aaatcggtga ctcacacatg ggcttagcgg ctcgtatgat gagccaagcg 300
atgcgtaaat tagcgggtaa cttaaagaac tcgaatacac ttttaatctt cattaaccaa 360
atccgtatga agattggcgt tatgtttggt aacccagaaa ccactaca 408

<210> 2208
<211> 403
<212> DNA
<213> Salmonella choleraesuis subsp. choleraesuis ATCC 9150

<400> 2208
gctgcaggtg attgccgctg cgcagcgtga aggtaaaacc tgtgcgttta tcgatgcgga 60
acacgcgctt gaccctgttt acgcacgcaa gctgggcgtc gatatcgata acctgctttg 120
ttctcagccg gataccggcg agcaggcgct ggaaatctgt gacgcgctgg cgcgttcagg 180
cgcggtggac gtcattgtgg tcgactccgt agcggcgcta acgccgaaag cggaaatcga 240
aggcgaaatt ggcgactctc acatgggcct cgcggcgcgt atgatgagcc aggcgatgcg 300
taagctggcg gggaacctaa aacagtccaa cacgctgttg attttcatca accagatccg 360
tatgaagatt ggcgtgatgt tcggtaaccc ggaaaccacc acc 403

<210> 2209
<211> 412
<212> DNA
<213> Salmonella choleraesuis subsp. choleraesuis ATCC 14028

<400> 2209
gaccctgacg ctgcaggtga ttgccgctgc gcagcgtgaa ggtaaaacct gtgcgtttat 60
cgatgcggaa cacgcgcttg accctgttta cgcacgcaag ctgggcgtcg atatcgataa 120
cctgctctgc tctcagccgg ataccggcga gcaggcgctg gaaatctgtg acgcgctggc 180
gcgttcaggc gcggtggacg tcattgtggt cgactccgta gcggcgctaa cgccgaaagc 240
ggaaatcgaa ggcgaaatcg gcgactctca catgggcctc gcggcgcgta tgatgagcca 300
ggcgatgcgt aagctggcgg ggaacctgaa acagtccaac acgctgttga ttttcatcaa 360
ccagatccgt atgaagattg gcgtgatgtt cggtaacccg gaaaccacca cc 412

<210> 2210
<211> 337
<212> DNA
<213> Staphylococcus saprophyticus ATCC 15305

<400> 2210
attagatcct gtttacgcag aagctttagg cgtagatata caaaatttat atttatctca 60
acctgatcat ggggaacaag gtttagaaat tgccgaagca tttgttagaa gtggcgctgt 120
tgatatcgtt gtggtcgatt cagttgctgc gcttacacct aaagctgaaa ttgaaggtga 180
aatgggagat acgcacgttg gtttgcaagc acgtcttatg tcccaagcct tgagaaagct 240
ttccggtgca atttcaaaat caaatacaac agcagtattt atcaaccaaa tccgtgaaaa 300
agttggtgtg atgttcggta atcctgaagt tacacca 337

<210> 2211
<211> 412
<212> DNA
<213> Yersinia pseudotuberculosis ATCC 29833

<400> 2211
gacactgaca ttacaggtta tcgccgccgc acagcgtgaa ggcaaaacgt gtgcatttat 60

cgatgccgaa catgcccttg acccaatcta tgccaagaaa ttgggtgtag atattgataa 120
cctactgtgt tctcagccag atactggcga gcaggcactg gaaatttgtg atgcgctgac 180
tcgctctggt gcggttgacg ttatcatcgt tgactccgta gcggcattga caccaaaagc 240
tgaaattgaa ggtgaaattg gcgattctca tatgggcctt gccgcgcgta tgatgagcca 300
ggctatgcgt aagctggcgg gtaacctgaa gaatgcgaat accttactga tttttatcaa 360
ccaaatccgc atgaaaattg gcgtgatgtt tggtaaccca gaaaccacta cc 412

<210> 2212
<211> 404
<212> DNA
<213> Zoogloae ramigera ATCC 25935

<400> 2212
cacgctcacc ttgcaaacca tcgcggaaat gcaaaaactg ggcggcacct gcgcgtttat 60
cgacgccgag cacgcactgg acgtcacgta cgcgcaaaag ctgggcgtca acctgagcga 120
tctgctgatc tcgcaaccgg acaccggcga acaagcgctg gaaatctgcg acgccctggt 180
gcgttccggt tcggtggaca tggtcgtgat cgactcggtc gccgcgctga ccccgcgcgc 240
cgagatcgaa ggcgacatgg gcgattcgct gccaggtttg caggcacgtt tgatgtcgca 300
agcactgcgc aagcttaccg gttcgatcaa ccgcaccaac accctggtca tcttcatcaa 360
ccagatccgc atgaaaatcg gcgtcatgtt cggcagcccg gaaa 404

<210> 2213
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2213
cgtgccattg acatgatttc cgaagaagac gctgaaggca cg 42

<210> 2214
<211> 125
<212> DNA
<213> Abiotrophia adiacens ATCC 49175

<400> 2214
caactacatt acgttctgca acacaaggtc gtggtacttt cagtatgaca tttgaccact 60
atgaagatgt tcctaagagc attgcagaag aaatcatcaa gaaaaatggc ggtaacggag 120
aataa 125

<210> 2215
<211> 140
<212> DNA
<213> Acinetobacter baumannii ATCC 19606

<400> 2215
cgactcaaat gcgttctatg tctcaaggtc gtgcgacata ctcaatggaa tttgctaaat 60
atgctgaaac tccacgtaac gtggctgaag gcatcatcgc taaattccaa gctggcggta 120
aaaaaggtga cgacgagtaa 140

<210> 2216
<211> 119
<212> DNA
<213> Actinomyces meyeri ATCC 35568

<400> 2216
ccggtgacct gcgttctaag acgcagggtc gcgctgtcta ctccatggag ttcgacagct 60
acgccgaggt tccgcgcgcg gtcgcggatg agatcgtcgg caagtctcgg ggcaactga 119

<210> 2217
<211> 113
<212> DNA
<213> Clostridium difficile ATCC 9689

<400> 2217
cgaccgacgt tcgctccatg tcccagggtc gcgcaagcta ctctatggaa ttcaaaaaat 60
acaacacagc tccggcgcac atcgctgaaa ctgtatccaa aaaacaaggc tga 113

<210> 2218
<211> 119
<212> DNA
<213> Corynebacterium diphtheriae ATCC 27010

<400> 2218
gcgacctgcg ttcccgtacc cagggccgtg caaactacac catgatcttc gactcctacg 60
ctgaggttcc taccaacgtg gcagctgaga tcgtggcaga gcgcaacggc actgcctaa 119

<210> 2219
<211> 115
<212> DNA
<213> Enterobacter cloacae ATCC 13047

<400> 2219
aactcagctg cgttctctga ccaaaggtcg tgcatcatac accatggaat tcctgaagta 60
tgatgatgcg cctaacaacg ttgctcaggc cgttattgaa gcccgtggta agtaa 115

<210> 2220
<211> 115
<212> DNA
<213> Klebsiella pneumoniae subsp. pneumoniae ATCC 13883

<400> 2220
aactcagctg cgttctctga ccaaaggtcg tgcatcatac accatggaat tcctgaagta 60
tgatgatgcg ccgaacaacg ttgctcaggc cgttattgaa gcccgtggta aataa 115

<210> 2221
<211> 113
<212> DNA
<213> Listeria monocytogenes ATCC 15313

<400> 2221
caactcacct tcgttcaggt acgcaaggtc gtggtgtata cactatgcaa tttgaccact 60
atgaagaagt tcctaaatct attgctgaag aaatcattaa agctaatggt gga 113

<210> 2222
<211> 118
<212> DNA
<213> Mycobacterium avium ATCC 25291

<400> 2222
cggcgacctg cggtccaaga cccaaggccg ggcgaactac tccatggtct tcgactccta 60
cgccgaagtg ccggccaacg tgtcgaagga gatcatcgcg aaggcgacgg gtcagtga 118

<210> 2223
<211> 119
<212> DNA
<213> Mycobacterium gordonae strain M-Gor-1

<400> 2223
ccggcgacct gcggtccaag acgcaaggcc gggcgaacta ctccatggtg ttcgactcgt 60
acgccgaagt tccggcgaac gtgtcgaagg agatcatcgc gaaggcgacg ggcgaatag 119

<210> 2224
<211> 118
<212> DNA
<213> Mycobacterium kansasii strain Mkan-1

<400> 2224
cggcgacctg cggtccaaga ctcaaggccg ggcgaactac tcgatggtgt tcgattccta 60
cgccgaagtg ccggctcagg tgtcgaagga gatcatcgcg aaggcgactg gcgagtga 118

<210> 2225
<211> 118
<212> DNA
<213> Mycobacterium terrae strain Mter-1

<400> 2225
cggagacttg cggtcgaaga cccagggccg ggcgaactac tccatggtgt tcgactccta 60
cgccgaagtg ccggcgcagg tggcgaagga gattatcgcg aaggcaacgg gcgagtaa 118

<210> 2226
<211> 115
<212> DNA
<213> Neisseria polysaccharea ATCC 43768

<400> 2226
gaccgacctg cgttctgcaa cccaaggccg cgctacttac tctatggagt tcaagaaata 60
ttctgaagct cctgcccaca tagctgctgc tgtaactgaa gcccgtaaag gctaa 115

<210> 2227
<211> 118
<212> DNA
<213> Staphylococcus epidermidis ATCC 14990

<400> 2227
aacttcatta cgttctaaca cgcaaggtcg cggtacttac acaatgtact ttgaccacta 60
tgcagaagtt cctaaatcaa ttgctgaaga aatcatcaag aaaaataaag gtgaataa 118

<210> 2228
<211> 118
<212> DNA
<213> Staphylococcus haemolyticus ATCC 29970

<400> 2228
aacttcatta cgttctaaca ctcaaggtcg cggtacttac actatgtact tcgatcacta 60
tgcagaagtt ccaaaatcaa ttgctgatga tatcatcaaa aaaaataaag gtgaataa 118

<210> 2229
<211> 1630
<212> DNA
<213> Succinivibrio dextrinosolvens ATCC 19716

<400> 2229
cgttcaatgc gtgttctaga cggtgcagtt atggtttact gtgctgtggg tggtgttcag 60
cctcagtctg aaaccgtttg gagacaggct cagaagtaca aggttcctcg tattgctttc 120
gttaataaga tggaccgtac tggtgctaat ttcctacgtg ttgtagagca gattaagacc 180
cgtctaaagg gtaaccctgt tcctctaatg ttacctatcg gtaaagagga cagctttgtt 240
ggtgtagttg acctaatcaa gcgtaaggct atcgactggg atgaggcatc tcagggtatg 300

aagtttgagt acgttgacat tccagcagat atggttgagg aagttgaaga gtggcgtgca 360
aagcttgtag aagcagctgc agaagctaac gacgagctga tggataaatt cttcggtggt 420
gaagagctga ccgaggaaga gatcaaggct gctctacgtg agcgtactct tcgcaacgaa 480
attattccta tgtgctgcgg ttcagcattt aagaacaagg gtgttcaggc aatgcttgac 540
gctgttgttg agtatcttcc atctccagca gatgttcctg ctgttgaggg taagacccta 600
accggtgaag ctgatactcg taaggctgac gataaagagc cattctctgc tttagcattt 660
aagctagcaa atgacccatt cgtaggtaac ttaacattct tacgttgcta ctcaggcttt 720
attaagtctg gtgacactgt aatgaactca gataagcaga agcgtgagcg tttcggccgt 780
ctagttcaga tgcacgctaa tgctcgtaat gaggttagcg aggtttatgc aggtgacatc 840
gttgctgcta ttggtctgaa ggaaaccgtt accggtgata ccttatgtga cccagagcat 900
ccaatcattc ttgagtcaat cgactttgca gagccagtta tctctgtagc agttgagcct 960
aagaccaagg acgatcagga gaagatggct cttgctttac agcgtttagc aaaagaagat 1020
ccttcattcc gcgttcgtac agacgaagag tctggccaga ccattatttc tggtatgggt 1080
gagcttcacc tagacatcat tgttgaccgt ctacgccgtg agttcaaggt tgagtgtaat 1140
cagggtaagc cacaggttgc ataccgtgag accattaaga gcaaggttga acagcaaggt 1200
aagtttgctc gtcagtctgg tggtcgtggt cagtacggtg actgctggtt acgtatggaa 1260
cctcttgagc caggtaaggg ctacgaattc gtgaatgaga ttgttggtgg tgtaattcct 1320
aaggaatata tccctgcaat tgataagggc tgtcaggagc agatcgctaa cggtgttcta 1380
gctggtttcc cagttgttga catcaagatc actgtattcg atggttctta ccacgaagtt 1440
gactcttcag aaatggcatt caagattgct gcttctatgg cattcaaaga gggcttcaag 1500
aaggcaaatc ctgttcttct agagccttta atgaaggtag aagttgatac tcctgaagac 1560
tacatgggtg acgttattgg tgacttaaac cgtcgtcgtg ctatcgttga aggcatggaa 1620
gatggtccta 1630

<210> 2230
<211> 1662
<212> DNA
<213> Tetragenococcus halophilus ATCC 33315

<400> 2230
ttgaagtgca acgttcattg cgtgtgctag acggttcagt tactgtcttg gactcacaat 60
caggtgttga accacaaact gaaacagttt ggcgtcaagc aacagaatat caagtacctc 120
gtattgtatt ctgtaataaa atggataagg ttggcgcaga tttcttatat tctgtccgat 180
cattgcatga tcgtttagaa gctaatgcac aacctatcca attgccaatt ggtgctgaag 240
ataactttga aggtatcatc gaccttgtga agatgaaagc tgaattttat aaagatgatt 300
tagggactac tttcgaagaa actgaaatcc cagatgaata taaagaaaca gctcaagaat 360
ggcataataa tttggtagaa tctgtagctg attttgatga agatatcatg atgaaatact 420
tggaaggtga agaaattaca cctgaagagt tacaagcagg tattcgtaaa gcaacattat 480
ctgttgaatt ttacccagta ttatgtggtt ctgcatttaa aaacaaaggt gttcaaatga 540
tgttggatgc agtaattgat tacttgcctt ctccaaccga cgttccccca attaaaggga 600
tcgatccgaa aacagatgaa gaaactgaac atcctgctga tgatagtgag ccttttttcat 660
cacttgcttt taaagttatg tcagaccctt atgttggccg cttaactttc ttccgtgttt 720
attcaggtgt gttggataca ggttcttatg tattgaatgc tactaagggt tcacgtgaac 780
gaattggtcg tattttgcaa atgcatgcca attctcgttc tgagatcgat aaggtttatt 840
caggtgacat tgcagctgct gtaggcttga agaacactac aacaggggat acccttttgtg 900
atgagaaaaa tccagttatt ttggaaacta tcaacttccc tgaaccagta attcaagttg 960
ctgttgaacc taagtcaaaa gctgaccaag ataaaatgag cgtagcacta caaaaacttg 1020
cagaagaaga cccatctttt aaagtggaaa ccaacgctga aactggcgaa actgtaattg 1080
ctggtatggg tgaacttcaa ttagacgttc ttattgaccg tatgaagact gaatttaaag 1140
tggatgccaa tattggtgca ccacaagttt cttatcgtga aactttccgt tcatcaacta 1200
aagctgaagg gaaatttatc cgccaatctg gtggtagagg tcaatacggt cacgtatggg 1260
ttgaatttac tccaaacgaa gaaggagcag gattcgaatt taaaaactcc attgttggtg 1320
gggttgtccc tcgtgactat atacctgcag tacaaaaagg actggaagac gccatggaaa 1380
atggtgtgtt agctggttat ccattagttg acgtaaaggc agaactgttt gatggttctt 1440
accatgacgt cgactctaat gaaacagcct tccgtattgc ggcttcaatg tctctacgtg 1500
aagctgcgaa aaaggcagat ccagttattc ttgaaccgat gatgaaagta acaattagta 1560
tccctgaaga atatctaggt gatattatgg gacatgttac agctcgtcgt ggtcgtgttg 1620
aaggaatgga tgctcacggt aatgcacaaa ctgtaaatgc gt 1662

<210> 2231
<211> 1652
<212> DNA
<213> Veillonella parvula ATCC 10790

<400> 2231
aagtagaacg ttctctacgt gtacttgacg gttctgttgc ggtgttcagt gctaaaggtg 60
gcgttgaacc tcaatccgaa acagtatggc gtcaggcttc taactacggc gtacctcgta 120
tcgcttatgt aaataagatg gatactgtag gtgctgactt cttcaacgta gttgacatga 180
tgaaagctcg tttgggtgca aattccgtag ctatccaagt accaatcggt gctgaagata 240
ctttcgaagg catcattgac ttgatgacta tgaaagcgga aatttataaa tccgatgacg 300
gtaaagaata tgaaatcact gatatccctg ctgaatatca agaagtagca gaagctcgtc 360
gcgaaatgat gatcgatgct atcgctgaaa cagatgatga tatcatgatg aaatatttgg 420
aaggcgaaga aatttctgtg gaagaattga aagcggcatt gcgtaaagct gttattgcta 480
accaattatt cccagttctt tgtggttctt cctataaaaa taaaggtgtt caaatgttat 540
tggatgctgt tatcgattac atgccagctc caatcgacat cccacctatt aaaggtgttg 600
ttcctggtac tgaagaagaa acaactcgtc cttcttccga tgaagagcca ttctctgcat 660
tggcattcaa aatcatggct gacccttatg ttggtaaatt agcgttcttc cgtgtgtact 720
ccggtacatt ggaatctggc tcctacgttt tcaactccac taaaggtaaa aaagaacgta 780
tcggtcgtat tcttcaaatg cacgctaact cccgtaaaga aatcgaacgc gtatattctg 840
gtgacatcgc tgcggcggtt ggcttaaagg atactactac aggcgacaca ttgtgtgatg 900
aaaaatctcc tgtaatcctt gagtccatgg aattccctga accagttatc tccgttgctg 960
ttgaacctaa aacaaaagct gaccaagaaa aaatgggtac agctcttgct cgtttggcag 1020
aagaagatcc tactttcaaa gttcgtactg atgaagaaac aggtcaaact attatctctg 1080
gtatgggcga acttcacttg gatatcatcg ttgaccgtat gaaccgtgaa ttcaaagtag 1140
attgtaacgt aggtaaacct caagtagcat accgcgaaac tatccgtaaa gctgttaagg 1200
ctgaaggtaa attcgtacgt caatctggtg gtcgtggtca atatggtcac tgctggttgg 1260
aattgattcc tcaagaacca ggtgctggct tcgagtttga aaacaaggtt gtaggtggtg 1320
cgattcctcg tgaatacatc ggacctgttg aaagcggtgt taaagaagct atggaatccg 1380
gtgttatcgc tgggtaccct atggttgatg ttaaagttat cgtatttgat ggttcttacc 1440
atgacgttga ctccaacgaa atggccttca aaattgctgg ttctatgggc ttcaaagaag 1500
gtgctcgcaa agcagaccct gcattgcttg aaccatatat ggctgtagaa gtagacgttc 1560
ctgaagaata catgggcgac gttatcggtg acttgaactc tcgtcgtggt cgcatggacg 1620
gcatggaagc tcgtaatggt tcccaacata tc 1652

<210> 2232
<211> 1624
<212> DNA
<213> Yersinia pseudotuberculosis ATCC 29833

<400> 2232
agtagagcgt tccatgcgtg ttcttgacgg cgcggtaatg gtttactgtg cagttggtgg 60
tgttcagcca cagtctgaaa ccgtatggcg tcaggctaat aaatataaag ttccacgtat 120
tgcgttcgtt aacaaaatgg accgtatggg tgcgaacttc ctgcgcgtag ttggtcaact 180
gaaatctcgc cttggtgcga acccagttcc actgcagttg gcaattggcg cagaagaaaa 240
attcaccggt attatcgatc tggtgaaaat gaaagcgatc aactggaacg aagctgatca 300
gggcgtgacc ttcgaatatg aagaaatccc tgctgatatg gctgaactgg ctgctgaatg 360
gcaccagaat ctggttgaat ctgcggcaga agcgtctgac gagctgatgg acaaatactt 420
gggtggcgaa gagctgaccg aagaagaaat caagaaagct ttacgtcaac gtgttctgaa 480
aagcgaaatt attcttgtta cctgtggttc tgcgtttaaa aacaaaggcg tacaggcaat 540
gctggatgcg gttattgagt acctgcctgc accaactgac gttgaatcaa tcaacggcat 600
cttggatgat ggcaaagata ctccggctgt tcgtcattct gacgacaaag agccgttctc 660
tgctctggcg ttcaaaatcg ctaccgaccc attcgtgggt aacctgacgt tcttccgcgt 720
gtactctggt attgttaatt ccggtgatac cgttctgaac tcagtgaaat cgcaacgtga 780
acgcttaggt cgtatcgtac agatgcacgc taacaagcgt gaagagatca aagaagttca 840
cgccggtgat atcgcagccg ctatcggtct gaaagatgtg actacgggtg acactttgtg 900
tgacccgaat aatccgatca tcttggaacg tatggagttc ccagagccgg taatctctgt 960
tgctgttgaa ccaaaaacca aagctgacca agaaaaaatg ggtatggctc tggggcgttt 1020
ggcgaaagaa gatccatcat tccgcgtttg gactgacgaa gaatctggtc agactatcat 1080
cgctggtatg ggtgagttgc atttggatat cctggttgac cgtatgcgcc gcgaatttaa 1140
cgtggaagca aacgtcggta aacctcaggt tgcgtaccgt gaaactatcc gcgaaaccgt 1200
taaggatgtg gaaggtaagc acgctaagca gtcaggcggt cgtggtcagt atggtcatgt 1260
tgttatcgac atgtctccat tgccaccggg tggtgttggg tatgaattcg tcaacgaaat 1320
cgttggtggt tctattccta aagaattcat tccggccgtt gataaaggta ttcaagaaca 1380
gctgaaatct ggccctctgg caggttaccc agttgttgac gttaaagtgc gtctgcacta 1440
cggttcttac catgacgttg actcctcaga attggcattt aaattagctg gttctatcgc 1500
ctttaaagaa ggtttcaaac gagctaaacc agttctgctt gagccaatca tgaaggttga 1560
agtcgaaacc cctgaagatt acatgggtga cgtaatgggc gacctgaacc gtcgtcgcgg 1620
tatc 1624

<210> 2233
<211> 1636
<212> DNA
<213> Zoogloae ramigera ATCC 25935

<400> 2233
gaacgctcga tgcgcgtgct tgacggtgct tgcatggttt actgcgcagt gggcggtgtt 60
cagccacagt cggaaaccgt gtggcgtcag gctaacaagt acaaagtgcc acgtctggcc 120
ttcgtcaaca agatggaccg taccggcgcc aacttcttca aggtgtacga gcagatgcgt 180
gctcgcctga aggccaaccc ggtcctgatc cagatcccta tcggcgctga agacaacttc 240
aaaggcgtga tcgatctggt caagatgaag gctatcctgt gggacgaagc gtcgcaaggc 300
atgaaattcg actacgtcga tattcctgca gagctggctg attcggccgc cgagtggcgc 360
gaaaagatgg ttgaagctgc tgctgaagcc accgaagagc tgatgaacaa gtacctggaa 420
gaaggcgacc tgaccgaagc cgagatcaag caggcgctgc gtacccgtac catcgcttcg 480
gaaatcgttc cgatgatgtg cggtaccgcc ttcaagaaca agggcgtaca ggccatgctg 540
gacgcggtca tcgaatacct gccatcgcca ctggacatcg acgatgtcgg cggtacggac 600
gaagacgacc agccaaccac ccgtcgcgca gctgacgacg agaaattctc ggcgctggcc 660
ttcaagatca tgaccgaccc gttcgtcggt caattggcct tcttccgcgt gtactcgggc 720
gccgtcaatt cgggcgacac cgtgtacaac tcggtcaaag gtcgtaaaga gcgtctgggc 780
cgtattctgc agatgcacgc gaatcagcgc gaagagatca aagaagtgcg cgccggcgac 840
atcgccgctg cggttggcct gaaagacgtg accacgggcg aaaccctgtg cgatccgacc 900
gccatcatca cgctggaaaa aatgatcttc cctgagcctg tgattcaaca ggcagtcgag 960
ccaaaaacca aggccgacca ggaaaaaatg ggcctggcac tgaaccgcct ggcacaggaa 1020
gatccttcgt tccgcgtgaa gaccgatgaa gaatcgggcc agaccatcat cggtggwatg 1080
ggcgagctgc acctggaaat tatcgttgac cgcatgaagc gcgaattcgg cgtggaagca 1140
accgtcggca agccacaagt ggcttaccgc gaaacgatcc gtaaaacctg cgaagaatcg 1200
gaaggcaagt tcgtcaagca atccggtggt cgtggtcaat acggtcacgt tgtgctgaag 1260
atcgagccgc aagaaccagg caagggcttc gagttcgttg acgccatcaa gggcggtacc 1320
gttcctcgcg agtacatccc tgcggtggaa aaaggcgtgc gcggcaccct gaacaccggc 1380
gtgctggctg gttacccggt cgtggacgtc aaggtcacgc tgttcttcgg ttcgtaccac 1440
gatgtggact cgaacgaaaa cgcgttccag atggccgctt cgatggcatt caaagaaggc 1500
tgccgcaaag catcgccagt cattctggag ccaatgatgg ctgtggaagt ggaaacgccg 1560
gaagactacg ccggtaccgt gatgggcgac ctgtcgtccc gccgcggtat ggtgcagggc 1620
atggacgaaa tcccag 1636

<210> 2234
<211> 1656
<212> DNA
<213> Aeromonas hydrophila ATCC 7966

<400> 2234
ggcacgaacg atcttgccgg acgggccatc ttccatacct tcgatcaggc cacgacgacg 60
gttcaggtca ccgatcacgt cgcccatata gtcttccgga gtctcgactt ctactttcat 120
gatcggttcg agcagaaccg ggttggcctt catgaagcca gccttaaagg ccatggaagc 180
agcgatcttg aacgccagtt cggaagagtc gacatcgtgg taggaaccga agtgcagacg 240
cacgcccaga tccataaccg gataacctgc cagcgggccg gacttcagtt gctcgcggat 300
acccttgtca acacccggga tgaactcacc aggaatgacg ccgcccttga tgtcgttgac 360
gaattcgtag gctttgcctt cttccagcgg gtacatgtcg atcacaacgt gaccgtactg 420
accacgacca ccggactgct tggcgtgctt accttcgata tccttgacgg tgttacgaat 480
ggtttcacgg taggcaacct gcggcttacc tacgttcgct tctaccttga actcgcgacg 540
catacggtca acgatgatgt ccaggtgcag ctcacccata ccggcgatga tggtttggcc 600
agactcttcg tcagtccata cgcggaagga cgggtcttcc tgagccagac ggcccagagc 660
caggcccatc ttctcttggt cagccttggt tttcggctca actgcgatgg agattaccgg 720
ttccgggaat tccatacgct cgaggatgat cggcgctttt tcgtcacaca gggtgtcacc 780
ggtggtcacg tctttcagac caatggcggc agcgatgtcg cctgcgcgaa cttctttgat 840
ctcttcacgc ttgttggcgt gcatctgaac gatacggcca aaacgctcgc gcttctcttt 900
aacggagttc agcacggagt caccggagtt aaccacaccg gagtaaacgc ggaagaaggt 960
caggttgcct acgaacgggt cggtagcaat cttgaatgcc agagcagcaa acggctcgtc 1020
atcagaagca tgacgctcgt ctttggtctc gccatccagc ttcagaccgt cgatggctgc 1080
tacgtcggtc ggcgccggca gatagtcaac cacggcatcc agcatggcct gtacgccctt 1140
gttcttgaac gcggagccac aggtaaccag gatgatttcg ttgttcagaa cacgctgacg 1200
aagagctttc ttgatctctt cctcggtcag ttcttcacca cccaggtatt tttccatcag 1260
gtcttcagac gcttcagcag cggcttcaac cagggtcatg cgcatttctt gcgcttttc 1320
cagcagctca gccgggacgt cttcgtaatc gaaggatacg ccctggtcag cttcgctcca 1380
gttgatggct ttcatcttga ccaggtcgat aacgcccttg aagttctctt ctgaaccgat 1440

gttcagttgc agcggaaccg ggttaccttt cagacgggtc ttgatgtgct caacgcagcg 1500
caggaagttg gcaccggtac ggtccatctt gttgacgaac gcgatacggg gaaccttgta 1560
cttgttagcc tgacgccata cggtttcaga ctgtggctgt acgccachta cggcacagta 1620
caccatcacg gcgccgtcca gaacacgcat ggaacg 1656

<210> 2235
<211> 155
<212> DNA
<213> Abiotrophia adiacens ATCC 49175

<400> 2235
tctcctcccc atttgataac taccaaatga acgctatcga ctggttatgt cagtcataac 60
cagttgattt ttaagagagt tctttggtat aattacaatc ggtagatact gttatagaat 120
ctaacaaaac tcaattaata ggaggaatca tttaa 155

<210> 2236
<211> 94
<212> DNA
<213> Acinetobacter baumannii ATCC 19606

<400> 2236
tctttcgatt actataagcc ctaactaatt cttagttaaa aaccaagtgc tcatggagcg 60
accctccatg agtagttaat aaaggaagat catc 94

<210> 2237
<211> 150
<212> DNA
<213> Actinomyces meyeri ATCC 35568

<400> 2237
gtcccaccgg gggtgagtgg gggccgggca atcggcccct gcgagccgcc tcacacacca 60
gtaatcccag taggtctcat gccccatggg tgttaaagtg acacctagcc gtaggctgag 120
aatttctacc cgagtccagg aggacgaaaa 150

<210> 2238
<211> 30
<212> DNA
<213> Clostridium difficile ATCC 9689

<400> 2238
ttcagtcctt taggcaagga gttaattgtc 30

<210> 2239
<211> 317
<212> DNA
<213> Corynebacterium diphtheriae ATCC 27010

<400> 2239
caactagcct ctcgcttatc tccctatgca aaatttctag tcagttacag ggcatagggg 60
gagcgtaggc gggggtagcg gcttgctgag cacttcctct acatcaaagg gaatgttgag 120
ccggccgtta ccctgtacga tcccatctgg tttcttcggt ggtttgataa ataccccgtt 180
gtgaccctag gatcatgtaa ctggcacaat gtaaatagct gtactgccag gctgccgaat 240
tagcagtcag aaatgtacag cactgtcaac tcgtggctgc gaaatcgtag ccaccacgaa 300
gtccaggagg acacaca 317

<210> 2240
<211> 69
<212> DNA
<213> Enterobacter cloacae ATCC 13047

<400> 2240
tccacaggat taaaacctaa gtcccgtgct ctctcctgag gggagagcac tatagtaagg 60
aatatagcc 69

<210> 2241
<211> 69
<212> DNA
<213> Klebsiella pneumoniae subsp. pneumoniae ATCC 13883

<400> 2241
tccacaggat taaaacctaa gtcccgtgct ctctccgaag gggagagcac tatagtaagg 60
aatatagcc 69

<210> 2242
<211> 126
<212> DNA
<213> Listeria monocytogenes ATCC 15313

<400> 2242
aacaacaaag aagattaatt gatttttttc gcaacatcaa gtataacttt agttagaagt 60
attacttagt ttaaatttaa gctaagtaaa aaataattat cgaattatcg aggaggatat 120
tttaaa 126

<210> 2243
<211> 170
<212> DNA
<213> Mycobacterium avium ATCC 25291

<400> 2243
gtgtcaactc actggctcgg agccgagcaa tcggctcagc gaaggcgacg ggtcagtagc 60
tactggcagc ggagtaatct tgccgggtca ttggaatgcc ttgggcgcgg cacaactgaa 120
aacaccaaca ctgctttaac aagcaccaac tagtccagga ggacacagaa 170

<210> 2244
<211> 103
<212> DNA
<213> Mycobacterium gordonae strain M-Gor-1

<400> 2244
ggccggcaag cctgcgagta agctgacgcg gttagcaccg cggcaaaacc aagaaaaatc 60
aacactgctt ttttaagcac caacagtcca ggaggacaac aaa 103

<210> 2245
<211> 101
<212> DNA
<213> Mycobacterium kansasii strain Mkan-1

<400> 2245
gccgagcgtt gcgcgtaagc tagctcggtt accacggcgg caaaactaga aaaacatcaa 60
cactgctttt ataagcacca acagtccagg aggacacaga a 101

<210> 2246
<211> 91
<212> DNA
<213> Mycobacterium terrae strain Mter-1

<400> 2246
ccagcttccc gcccgtgccg ctacggtggc acaaacccaa aaagatcaat cctgctgtaa 60
cccagcacca acaagtccag gaggacaaga a 91

<210> 2247
<211> 87
<212> DNA
<213> Neisseria polysaccharea ATCC 43768

<400> 2247
tcaggcaaat aggccgtctg aaaggctgaa atgatttttc agacggcatt gttctttaat 60
cgatctttaa tgtaaaggaa ttagctc 87

<210> 2248
<211> 218
<212> DNA
<213> Staphylococcus epidermidis ATCC 14990

<400> 2248
tataacttgt taagactagc tatgctaggt taaaatacag gttgagctta tttataagct 60
gacattttta tgatttgatt tttaggggta aatgcattat aaaagaatta taaattcttt 120
tatgctacac tcaatcaatt ttcttctcat gatggtgaga aactatcatg agagataaat 180
ttgaaataac ttttattaag aataggagag atttaata 218

<210> 2249
<211> 204
<212> DNA
<213> Staphylococcus haemolyticus ATCC 29970

<400> 2249
ttaaacttgt tttagctaga atttctaggt aaaatacagc gtaagcttat taattaagct 60
aacatcttta tgaattgatt ttttactgaa aatgcattat aaatgaatta tgaattctaa 120
caatcattat gtctcatgat ggtgagaaac tatcatgaga gataatattg aaataacttt 180
tactagaata ggagagattt aata 204

<210> 2250
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2250
ccgtcggatg gtgtcgtata ccgcggagtc gccgacgg 38

<210> 2251
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2251
cggagccgtt ctcgctgcgt tacatgctgg tggctccg 38

<210> 2252
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2252
ccacatacag tgtctctc 18

<210> 2253
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2253
cattacccaa ccgaaagta 19

<210> 2254
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2254
acctgaacag agagaaatg 19

<210> 2255
<211> 273
<212> DNA
<213> Abiotrophia adiacens ATCC 49175

<400> 2255
atggcaaaag aaaaatttga ccgttcaaaa ccacacgtta acattggtac aatcggccac 60
gttgaccacg gtaaaacaac attaactgct gctatcacaa ctgttttagc taagaaaggt 120
ttcgcgcaag ctcaagatta cggttcaatc gataaagctc cagaagaacg cgaacgtggt 180
atcacaatca acacttctca cgttgagtac gaaacagaca ctcgtcacta tgctcacgtt 240
gactgcccag gacacgcgga ctacgttaaa aac 273

<210> 2256
<211> 273
<212> DNA
<213> Acinetobacter baumannii ATCC 19606

<400> 2256
atggctaaag ccaagtttga acgtaataaa ccacacgtaa acgtgggtac aatcggtcac 60
gttgaccatg gtaaaacaac tttaactgct gcgattgcaa caatttgtgc aaaaacttac 120
ggcggtgaag cgaaagatta ctcacaaatc gactcagcac ctgaagaaaa agcacgtggt 180
attacaatta atacatcaca cgtagaatac gattctccaa ctcgtcacta cgcacacgtt 240
gactgcccag gccacgccga ctacgttaaa aac 273

<210> 2257
<211> 279
<212> DNA
<213> Actinomyces meyeri ATCC 35568

<400> 2257
gtggcgaagg ccaagtttga gcgcaccaag ccgcacgtca acatcggcac gattggtcac 60

gttgaccacg gcaagacgac gctgacggca gctatcacca aggtgctgca tgacaagtac 120
cccgaactga acgagttcac ccccttcgat caggtcgaca acgctcccga ggagcgcgat 180
cgtggcatca cgatcaacgt ctctcacgtt gagtaccaga ccgaggcgcg tcactacgcg 240
cacgttgacg ctcccggcca cgccgactac gtcaagaac 279

<210> 2258
<211> 273
<212> DNA
<213> Clostridium difficile ATCC 9689

<400> 2258
gtggctaaag aaaaatttga tcgttcccta ccgcacgtca acgttggcac tatcggtcac 60
gttgaccatg gtaaaaccac tctgactgct gctctgactc gcgtttgctc cgaagtattc 120
ggttccgcaa tcgttgattt cgataaaatc gacagcgcac cagaagaaaa agctcgtggt 180
atcaccatca acaccgcgca cgttgaatac aactcgctga tccgtcacta cgctcacgtt 240
gactgcccag gtcacgctga ctatgtgaag aac 273

<210> 2259
<211> 279
<212> DNA
<213> Corynebacterium diphtheriae ATCC 27010

<400> 2259
gtggcaaagg ctaagttcga gcgtaccaag ccgcacgtca acatcggcac catcggtcac 60
gttgaccacg gtaagaccac caccaccgct gctatcacca aggttttggc agacgcttac 120
ccagagctga acgaagcttt cgctttcgat gccatcgata aggcaccgga agagaaagag 180
cgtggtatta ccatcaacat ctcccacgtg gagtaccaga ccgagaagcg ccactacgca 240
cacgttgacg ctccaggtca cgctgactac atcaagaac 279

<210> 2260
<211> 273
<212> DNA
<213> Enterobacter cloacae ATCC 13047

<400> 2260
gtgtctaaag aaaaatttga acgtacaaaa ccgcacgtca acgttggtac tatcggccac 60
gttgaccatg gtaaaactac cctgactgct gcaatcacta ccgttctggc taaaacctac 120
ggtggttctg ctcgtgcatt cgaccagatc gataacgcac cagaagaaaa agctcgtggt 180
atcaccatca acacctctca cgttgaatat gacaccccga ctcgccacta cgcacacgta 240
gactgcccag gtcacgccga ctatgttaaa aac 273

<210> 2261
<211> 273
<212> DNA
<213> Klebsiella pneumoniae subsp. pneumoniae ATCC 13883

<400> 2261
gtgtctaaag aaaaatttga acgtacaaaa ccgcacgtca acgttggtac tatcggccac 60
gttgaccatg gtaaaactac cctgactgct gccatcacta ccgttctggc taaaacctac 120
ggtggttccg ctcgcgcatt cgaccagatc gataacgcgc cggaagaaaa agctcgtggt 180
atcaccatca acacctctca cgttgaatat gacaccccga ctcgccacta cgcgcacgta 240
gactgcccgg gccacgccga ctatgttaaa aac 273

<210> 2262
<211> 273
<212> DNA
<213> Listeria monocytogenes ATCC 15313

<400> 2262
atggcaaaag aaaaatttga ccgctctaaa ccccatgtta acattggtac tattggacac 60
gttgaccatg gtaaaacaac tttaactgct gcaattacaa ctgtacttgc taaaaaaggc 120

tatgctgatg cacaagctta tgaccaaatt gatggtgctc cagaagaaag agaacgtgga 180
atcacaatct ctactgctca cgttgagtac caaactgaca gccgtcacta tgcacacgtt 240
gactgcccag gacatgccga ttacgttaaa aac 273

<210> 2263
<211> 279
<212> DNA
<213> Mycobacterium avium ATCC 25291

<400> 2263
gtggcgaagg cgaagttcga gcggacgaag ccgcacgtca acatcgggac catcggtcac 60
gttgaccacg gcaagaccac gctgaccgcg gctatcacca aggttctgca cgacaagtac 120
ccggacctga acgagtcccg cgcgttcgac cagatcgaca acgcgcccga ggagcgtcag 180
cgcggtatca ccatcaacat ctcccacgtg gagtaccaga ccgacaagcg gcactacgct 240
cacgtcgacg ccccgggtca cgccgactac atcaagaac 279

<210> 2264
<211> 279
<212> DNA
<213> Mycobacterium gordonae strain M-Gor-1

<400> 2264
gtggcgaagg cgaagttcca gcggaccaag ccgcacgtca acatcgggac catcggtcac 60
gttgaccacg gcaagaccac tctgaccgcg gctatcacca aggtcctgca cgacaagtac 120
ccggacctga acgagtccaa ggcgttcgac cagatcgaca acgcgcctga ggagcgtcag 180
cgcggtatca cgatcaacat cgcgcacgtg gaataccaga ccgagaagcg tcactacgcg 240
cacgtcgacg cccccggcca cgccgactac atcaagaac 279

<210> 2265
<211> 279
<212> DNA
<213> Mycobacterium kansasii strain Mkan-1

<400> 2265
gtggcgaagg cgaagttcca gcggaccaag ccccacgtca acatcgggac catcggtcac 60
gttgaccacg gcaagaccac cctgaccgcg gctatcacca aggtcctgca tgacaagttc 120
ccggacctga acgagtcgaa ggcgttcgac cagatcgaca acgctcctga ggagcgccag 180
cgcggtatca cgatcaacat cgcgcacgtg gagtaccaga ccgagaagcg gcactatgca 240
cacgtcgacg cgccgggcca cgccgactac atcaagaac 279

<210> 2266
<211> 279
<212> DNA
<213> Mycobacterium terrae strain Mter-1

<400> 2266
gtggcgaagg cgaagttcga gcggacgaag ccgcacgtca acatcgggac catcggtcac 60
gttgaccacg gcaagaccac gctgaccgcg gctatcacca aggttctgca cgacaagtac 120
ccggacctca acgagtcgcg tgcgttcgac cagatcgaca acgctcccga agagcgtcag 180
cgcggtatca ccatcaacat ctcccacgtg gagtaccaga ccgagaagcg gcactacgcc 240
cacgtcgacg ctcctggtca cgctgactac atcaagaac 279

<210> 2267
<211> 273
<212> DNA
<213> Neisseria polysaccharea ATCC 43768

<400> 2267
atggctaagg aaaaattcga acgtagcaaa ccgcacgtaa acgttggcac catcggtcac 60
gttgaccatg gtaaaaccac tctgactgct gctttgacta ctattttggc taaaaaattc 120
ggcggtgctg caaaagctta cgaccaaatc gacaacgcac ccgaagaaaa agcacgcggt 180

attaccatta acacctcgca cgtagaatac gaaaccgaaa cccgccacta cgcacacgta 240
gactgcccgg gtcacgccga ctacgttaaa aac 273

<210> 2268
<211> 273
<212> DNA
<213> Staphylococcus epidermidis ATCC 14990

<400> 2268
atggcaaaag aaaaatttga tcgctcaaaa gaacatgcca atattggtac tatcggtcac 60
gttgaccatg gtaaaacaac tttaacagct gctatcgcaa ctgtattagc taaaaatggt 120
gacactgttg cacaatcata cgatatgatt gacaacgctc cagaagaaaa agaacgtggt 180
attacaatca atactgcaca tatcgaatac caaactgaca aacgtcacta tgctcacgtt 240
gactgcccag gacacgctga ctatgttaaa aac 273

<210> 2269
<211> 273
<212> DNA
<213> Staphylococcus haemolyticus ATCC 29970

<400> 2269
atggcaaaag aaaaatttga tcgctcaaaa gaacatgcca atattggtac tatcggtcac 60
gttgaccatg gtaaaactac tttaacagct gctatcgcaa ctgtattagc taaaaatggt 120
gacactgtag cacaatcata tgacatgatt gacaacgctc cagaagaaaa agaacgtggt 180
atcacaatca atactgcaca catcgagtat caaactgaca aacgtcacta tgctcacgtt 240
gactgcccag gacacgctga ctatgttaaa aac 273

<210> 2270
<211> 812
<212> DNA
<213> Aeromonas hydrophila ATCC 7966

<400> 2270
cgatcctggt agtagcagcg actgacggcc cgatgccgca gactcgtgag cacatcctgc 60
tgggtcgtca ggtaggcgtt ccgtacatca tcgtgttcat gaacaagtgt gacatggtag 120
atgacgaaga gctgctggaa ctggtcgaga tggaagttcg cgaactgctg tccgagtacg 180
acttcccggg tgatgacctg ccggtagtcc gtggttcygc actgaaagcg ctggaaggcg 240
aagctcagtg ggaagagaag atcctggaac tggctggcca cctggacacc tacattccgg 300
agccggagcg tgccatcgac ctgccgttcc tgatgcctat cgaagacgta ttctccatcg 360
ctggccgygg taccgtagtg accggtcgtg tagagcgcgg tatcgtcaaa gttggtgaag 420
aagtggaaat cgtkggtatc aaagatacca ccaagaccac ctgtaccggc gttgaaatgt 480
tccgcaaact gctggacgaa ggtcgtgcag gcgagaacat cggtgcactg ctgcgtggcg 540
tgaagcgtga agacgtagag cgtggtcagg tactggccaa gccgggcacc atcaagccgc 600
acaccaagtt ygaatctgaa gtgtacgtgc tgtccaaaga agaaggtggt cgtcataccc 660
cgttcttcaa aggctaccgt ccgcagttct acttccgtac taccgacgtg accggtacca 720
tcgaactgcc ggaaggcgta gagatggtaa tgccgggcga caacatcaag atggttgtta 780
ccctgattgc gccgatcgcg atggacgacg gc 812

<210> 2271
<211> 799
<212> DNA
<213> Bilophila wadsworthia ATCC 49260

<400> 2271
cgacggtccc atgccccaga cccgtgagca catcctgctc gcccgtcagg tcggcgtgcc 60
tcacctcgtc gtgttcatga acaagtgtga cctcgtcgac gaccccgaac tgctcgaact 120
cgtcgaaatg gaagtccgcg aactgctgag ctcctacggc taccccggcg atgaaatccc 180
ggttgtccgc ggttccgctc tgaaggctct ggaatccgat agcgctgatt cccctgacgc 240
ccagtgcgtg ctcgaactgc tcgccgcttg cgacagctac ttcccggatc cggtccgcga 300
aaccgacaag cccttcctga tgcccatcga agacgtgttc tccatctccg gccgcggtac 360
cgtggtcacc ggtcgtgtgg aacgtggcat catcaaggtc ggcgaagaag tcgaaatcgt 420
gggtatccgt cccaccgtga agacgacctg caccggcgtc gaaatgttcc gcaagctgct 480

cgatcagggc caggccggcg acaacatcgg cgctctgctc cgcggcacga agcgtgacga 540
agtggaacgc ggccaggttc tcgccgctcc caagagcatc acgccccaca agaagttcaa 600
ggctgaagtg tacgttctgt ccaaggaaga aggcggccgc cataccccgt tcttcaccgg 660
ctatcgtcct cagttctact tccgtaccac cgacatcacc ggtatcatcg ctcttgaaga 720
aggcgttgaa atggttatgc ccggcgataa cgctaccttt aatgtcgagc tcattcaccc 780
catcgccatg gaaaagggc 799

<210> 2272
<211> 786
<212> DNA
<213> Brevundimonas diminuta ATCC 11568

<400> 2272
gatcctggtg tgctcggccg ctgacggccc gatgccgcag acccgcgagc acatcctgct 60
gtcgcgtcag gtcggcgttc cggcgctggt ggtgttcctg aacaaggtcg acatggtcga 120
cgacgaggar ctgctggagc tggtcgagat ggaagtgcgc gagctgctga gctcgtacca 180
gttcccgggc gacgacatcc cggtggtcaa gggctcggcc ctggccgcgg tggaggatcg 240
cgacccgcac atcggcgccg agcgcgttct ggagctgatg gcggcggtcg acagctacat 300
cccgcagccg gaacgtccga tcgacatgcc gttcctgatg ccggtggaag acgtgttctc 360
gatctcgggc cgcggcaccg tggtgacggg tcgcgtcgag cgcggcgtcg tcaaggtcgg 420
tgaagaagtc gaaatcgtcg gcatccgtcc ggttcagaag acgacctgca cgggcgtcga 480
aatgttccgc aagctgctgg aycagggtca rgccggcgac aacgtgggcg tgctgctgcg 540
cggcaccaag cgtgaagacg tcgagcgcgg ccaggtgctg tgcaagccgg gttcgatcac 600
cccgcacacc aagttcgtgg ctgaagccta catcctgaac aaggaagaag gcggccgtca 660
cacgccgttc ttcacgaact accgtccgca gttctacttc cgcacgacgg acgtgaccgg 720
catcgtgcgc ctgaaggaag gcgtcgagat gatcatgccg ggcgacaacg ccgagctgga 780
cgtcga 786

<210> 2273
<211> 560
<212> DNA
<213> Streptococcus mitis strain LSPQ 2583

<400> 2273
gctattatgg ctggattact atccaatacg ctatccaaga atcccgtaac gtacctgccg 60
tcaaatcgct ggaagcagtc ggattagata attcattgaa attcctcaat ggccttggta 120
tcaattatcc tgagatgcat tattctaatg cgatttcaag taatacaagc gaatctggta 180
accaatacgg agcaagtagc gaaaaaatgg ctgccgctta cgctgccttt gctaatggcg 240
gtacatatta caaaccgcaa tacgtcaacc gagttgtctt tagcgacggt acagaaaaag 300
tcttttcaaa tggcggatca aaagccatga aagagacgac agcctacatg atgacagaca 360
tgatgaagac cgttcttcag tctggaactg gtaccaatgc tgcaatccca ggagtttatc 420
aagcaggtaa aactggtact tccaactatg cagatgatga gctagagaag ttgacaaaac 480
cttattacag ttctagcatt gtcacaccag acgaactatt tgttggctat actccacaat 540
actctatggc tgtttggaca 560

<210> 2274
<211> 551
<212> DNA
<213> Streptococcus mitis ATCC 49456

<400> 2274
gctactttgg aaacattact gtccaatatg ctcttcaaca atcacgtaat gtcacagccg 60
ttgaaacttt gaataaggtc ggtctagata aggctaaagc cttccttaat gggcttggta 120
ttgattatcc aagcatgcat tatgcaaacg ccatttcaag taatacaact gaatccaaca 180
aaaaatacgg tgcaagtagt gaaaaaatgg ctgctgccta cgctgctttt gctaatggtg 240
gtatttacca caagccaatg tacatcaata aaatcgtctt tagcgacggt agtgagaaag 300
aattttctga tgccggcaca cgagctatga aagaaactac tgcctatatg atgactgaaa 360
tgatgaaaac agtcctagta tacggtaccg gacgtggagc ctacctacca tggcttccac 420
aagcaggtaa gacaggtact tctaactata ctgacgacga aattgaaaag tatatcaaga 480
acactggcta cgtagcccca gatgaaatgt ttgtagggta tactcgtaaa tatgcaatgg 540
ctgtttggac a 551

<210> 2275
<211> 560
<212> DNA
<213> Streptococcus mitis ATCC 903

<400> 2275
gctattatgg ctggattact atccaatacg ctatccaaga atcccgtaac gtaccagccg 60
tcaaatcgct ggaagcagtc ggattagata attcattgaa gttcctcaat ggccttggta 120
ttaattaccc tgaaatgcat tattctaatg cgatttcaag taatacaagc gaatctggta 180
accaatacgg agcaagtagc gaaaaaatgg ctgccgctta cgctgccttt gctaatggcg 240
gtacatatta caaaccgcaa tacgtcaacc gagttgtctt tagcgacggt acagaaaaag 300
tcttttcaaa tggcggatca aaagccatga aagaaacgac agcctacatg atgacagaca 360
tgatgaagac cgttcttcaa tctggaactg gtaccaatgc tgcaattcca ggagtctatc 420
aagcaggtaa aaccggcact tccaactatg cagatgatga actagagaag ttgacaaaac 480
cttattacag ttctagcatt gtcacaccag acgagctgtt tgttggctac actccacagt 540
actctatggc tgtttggaca 560

<210> 2276
<211> 550
<212> DNA
<213> Streptococcus oralis ATCC 35037

<400> 2276
ttattttgga aatatcacca tccaatatgc gctccaacaa tcacggaacg ttacagccgt 60
agaaaccttg aacaaagtcg gtttggatag agccaagacc ttcctgaatg gaatcggtat 120
tgactatcca gatatgcact atgccaacgc gatttcaagt aatacgactg agtcaaacaa 180
aaagtacgga gcaagtagtg agaaaatggc tgctgcttac gctgcttttg ctaacggtgg 240
tatctaccat aaaccaatgt atatcaacaa aatcgtcttt agcgatggta gctcaaaaga 300
atacgctgat cctggtactc gtgccatgaa agagacgacc gcctatatga tgacagaaat 360
gatgaagact gtcttggcat acggaacggg tcgtggtgct tatctccctt ggctacctca 420
agctggtaag actggtacat caaactatac agatgatgaa attgaaaact acatcaaaaa 480
tactggttat gtagccccag acgaaatgtt tgttggttat actcgcaaat attcaatggc 540
tgtwtggaca 550

<210> 2277
<211> 356
<212> DNA
<213> Escherichia coli ATCC 35401

<400> 2277
gctcctatct ggattatgcg atgtcggtca ttgttggccg tgcgctgcca gatgtccgag 60
atggcctgaa gccggtacac cgtcgcgtac tttacgccat gaacgtacta ggcaatgact 120
ggaacaaagc ctataaaaaa tctgcccgtg tcgttggtga cgtaatcggt aaataccatc 180
cccatggtga ctcggcggtc tatgacacga tcgtccgcat ggcgcagcca ttctcgctgc 240
gttatatgct ggtagacggt cagggtaact tcggttctat cgacggcgac tctgcggcgg 300
caatgcgtta tacggaaatc cgtctggcga aaattgccca tgaactgatg gccgat 356

<210> 2278
<211> 347
<212> DNA
<213> Escherichia coli ATCC 23511

<400> 2278
ctcttatctg gattatgcga tgtcggtcat tgttggccgc gcgctgccgg atgtccgaga 60
tggcctgaag ccggtacacc gtcgcgtact ttacgccatg aacgtattgg gcaatgactg 120
gaacaaagcc tacaaaaaat cagcccgtgt cgttggtgac gtgatcggta aataccaccc 180
gcacggcgac tccgcggtat atgacaccat cgttcgtatg gcccagccgt tctcgctgcg 240
ctacatgctg gtggatggcc aggggaactt cggttcaatc gacggcgact ccgccgcggc 300
aatgcgttat acggaaatcc gtctggcgaa aattgctcac gaactga 347

<210> 2279
<211> 362

<212> DNA
<213> Escherichia coli ATCC 43886

<400> 2279
agagctccta tctggattat gcgatgtcgg tcattgttgg ccgtgcgctg ccagatgtcc 60
gagatggcct gaagccggta caccgtcgcg tactttacgc catgaacgta ctaggcaatg 120
actggaacaa agcctataaa aaatctgccc gtgtcgttgg tgacgtaatc ggtaaatacc 180
atccccatgg tgactcggcg gtctatgaca cgatcgtccg catggcgcag ccattctcgc 240
tgcgttatat gctggtagac ggtcagggta acttcggttc tatcgacggc gactctgcgg 300
cggcaatgcg ttatacggaa atccgtctgg cgaaaattgc ccatgaactg atggccgatc 360
tc 362

<210> 2280
<211> 358
<212> DNA
<213> Escherichia coli ATCC 25922

<400> 2280
ctcctatctg gattatgcga tgtcggtcat tgttggccgt gcgctgccag atgtccgaga 60
tggcctgaag ccggtacacc gtcgcgtact ttacgccatg aacgtactag gcaatgactg 120
gaacaaagcc tataaaaaat ctgcccgtgt cgttggtgac gtaatcggta aataccatcc 180
ccatggtgac tcggcggttt atgacacgat cgtccgtatg gcgcagccat tctcgctgcg 240
ttacatgctg gtagacggtc agggtaactt cggttccatc gacggcgact ctgcggcggc 300
aatgcgttat acggaaatcc gtctggcgaa aattgcccat gaactgatgg ccgatctc 358

<210> 2281
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2281
cccccagctg ggcggcggta tcgatggggg 30

<210> 2282
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (7)..(7)
<223> n represents a modified base

<220>
<221> modified_base
<222> (7)..(7)
<223> i

<400> 2282
agrrgcnmar atgtatga 18

<210> 2283
<211> 22
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (3)..(3)
<223> n represents a modified base

<220>
<221> misc_feature
<222> (13)..(13)
<223> n represents a modified base

<220>
<221> modified_base
<222> (3)..(3)
<223> i

<220>
<221> modified_base
<222> (13)..(13)
<223> i

<400> 2283
atntatgayg gknttcagag gc 22

<210> 2284
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (11)..(11)
<223> n represents a modified base

<220>
<221> modified_base
<222> (11)..(11)
<223> i

<400> 2284
tctgwgtrac nggytckgag a 21

<210> 2285
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<220>
<221> misc_feature
<222> (5)..(5)
<223> n represents a modified base

<220>
<221> modified_base
<222> (5)..(5)
<223> i

<400> 2285
cmccnccwgg tggwgawac 19

<210> 2286
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2286
agttgctgta ttaggaaatg 20

<210> 2287
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2287
tcgaagttgc tgtattagga 20

<210> 2288
<211> 1240
<212> DNA
<213> Enterococcus faecium strain BM4339

<400> 2288
tagaagctgg ctcgtttttt tataaataag ttattcgttt atttttgttt tgtgctaaaa 60
tatgagagta aatcactgaa cgatttagaa tacaggagga caatcttttg aagattactt 120
tactatatgg cggacgcagc gcagagcaga gcatgaagtg tccattcttt ccgcattttc 180
agtttttaaat gccatttatt ataattatta ccaagttcaa ctcgtattta ttacaaaaga 240
aggacaatgg gtcaaaggtc cattactaac agaaaaacct gccagcaaag atgtcttgca 300
tctttcatgg gacccaagtg gacagacaga ggaaggcttt acaggaaaag tgatcaatcc 360
gggcgaaatc aaagaagaag gagccatcgt ttttccagtt ttacatgggc caaacgggga 420
agatggaacg atccaaggct tcttagagac attgaatatg ccttatgtcg gcgcaggcgt 480
attgaccagt gcatgtgcca tggataaaat catgaccaag tatattttac aagctgctgg 540
tgtgccgcaa gttccttatg taccagtact taagaatcaa tggaaagaaa atcctaaaaa 600
agtatttgat caatgtgaag gttctttgct ttatccgatg tttgtcaaac cggcgaatat 660
gggttctagt gtcggcatta caaaagcaga aaaccgagaa gagctgcaaa atgctttagc 720
aacagcctat cagtatgatt ctcgagcaat cgttgaacaa ggaattgaag cgcgcgaaat 780
cgaagttgct gtattaggaa atgaagacgt tcggacgact ttgcctggtg aagtcgtaaa 840
agacgtagca ttctatgatt atgaagcaaa atatatcaat aataaaatcg aaatgcagat 900
tccagccgaa gtgccagaag aagtttatca aaaagcgcaa gagtacgcga agttagctta 960
cacgatgtta ggtggaagcg gattgagccg gtgcgatttc tttttgacaa ataaaaatga 1020
attattcctg aatgaattaa actctatgcc aggatttacg gagttcagta tgtacccact 1080
cttatgggaa aatatgggct tgaaatacgg tgatttgatt gaagaactga tccagttagg 1140
aatgaatcga taccatcagc gtcaatcttt ttttgaaaaa aatgaataaa gagaaataaa 1200
gaagaggctg gagtgattgc gtaaccgcgt tcattctagc 1240

<210> 2289
<211> 20

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2289
caccgaagaa gatgaaaaaa 20

<210> 2290
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2290
tggcaccgaa gaagatga 18

<210> 2291
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2291
attttggcac cgaagaaga 19

<210> 2292
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2292
gaatcggcaa gacaatatg 19

<210> 2293
<211> 1032
<212> DNA
<213> Enterococcus faecium strain BM4147

<400> 2293
atgaatagaa taaaagttgc aatactgttt gggggttgct cagaggagca tgacgtatcg 60
gtaaaatctg caatagagat agccgctaac attaataaag aaaaatacga gccgttatac 120
attggaatta cgaaatctgg tgtatggaaa atgtgcgaaa aaccttgcgc ggaatgggaa 180
aacgacaatt gctattcagc tgtactctcg ccggataaaa aaatgcacgg attacttgtt 240
aaaaagaacc atgaatatga aatcaaccat gttgatgtag cattttcagc tttgcatggc 300
aagtcaggtg aagatggatc catacaaggt ctgtttgaat tgtccggtat ccctttgta 360
ggctgcgata ttcaaagctc agcaatttgt atggacaaat cgttgacata catcgttgcg 420
aaaaatgctg ggatagctac tcccgccttt tgggttatta ataaagatga taggccggtg 480
gcagctacgt ttacctatcc tgtttttgtt aagccggcgc gttcaggctc atccttcggt 540
gtgaaaaaag tcaatagcgc ggacgaattg gactacgcaa ttgaatcggc aagacaatat 600

gacagcaaaa tcttaattga gcaggctgtt tcgggctgtg aggtcggttg tgcggtattg 660
ggaaacagtg ccgcgttagt tgttggcgag gtggaccaaa tcaggctgca gtacggaatc 720
tttcgtattc atcaggaagt cgagccggaa aaaggctctg aaaacgcagt tataaccgtt 780
cccgcagacc tttcagcaga ggagcgagga cggatacagg aaacggcaaa aaaaatatat 840
aaagcgctcg gctgtagagg tctagcccgt gtggatatgt ttttacaaga taacggccgc 900
attgtactga acgaagtcaa tactctgccc ggtttcacgt catacagtcg ttatccccgt 960
atgatggccg ctgcaggtat tgcacttccc gaactgattg accgcttgat cgtattagcg 1020
ttaaaggggt ga 1032

<210> 2294
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2294
aaacgaggat gatttgattg 20

<210> 2295
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2295
ttgagcaagc gatttcgg 18

<210> 2296
<211> 1029
<212> DNA
<213> Enterococcus faecalis strain V583

<400> 2296
atgaataaaa taaaagtcgc aattatcttc ggcggttgct cggaggaaca tgatgtgtcg 60
gtaaaatccg caatagaaat tgctgcgaac attaatactg aaaaattcga tccgcactac 120
atcggaatta caaaaaacgg cgtatggaag ctatgcaaga agccatgtac ggaatgggaa 180
gccgatagtc tccccgccat attctccccg gataggaaaa cgcatggtct gcttgtcatg 240
aaagaaagag aatacgaaac tcggcgtatt gacgtggctt tcccggtttt gcatggcaaa 300
tgcggggagg atggtgcgat acagggtctg tttgaattgt ctggtatccc ctatgtaggc 360
tgcgatattc aaagctccgc agcttgcatg gacaaatcac tggcctacat tcttacaaaa 420
aatgcgggca tcgccgtccc cgaatttcaa atgattgaaa aaggtgacaa accggaggcg 480
aggacgctta cctaccctgt ctttgtgaag ccggcacggt caggttcgtc ctttggcgta 540
accaaagtaa acagtacgga agaactaaac gctgcgatag aagcagcagg acaatatgat 600
ggaaaaatct taattgagca agcgatttcg ggctgtgagg tcggctgcgc ggtcatggga 660
aacgaggatg atttgattgt cggcgaagtg gatcaaatcc ggttgagcca cggtatcttc 720
cgcatccatc aggaaaacga gccggaaaaa ggctcagaga atgcgatgat tatcgttcca 780
gcagacattc cggtcgagga acgaaatcgg gtgcaagaaa cggcaaagaa agtatatcgg 840
gtgcttggat gcagagggct tgctcgtgtt gatcttttt tgcaggagga tggcggcatc 900
gttctaaacg aggtcaatac cctgcccggt tttacatcgt acagccgcta tccacgcatg 960
gcggctgccg caggaatcac gcttcccgca ctaattgaca gcctgattac attggcgata 1020
gagaggtga 1029

<210> 2297
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Oligonucleotide

<400> 2297
ttcaggaggg ggatcgc 17